

Connecting via Winsock to STN

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LOGINID:ssspta1626gms

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TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 May 10 PROUSDDR now available on STN
NEWS 4 May 19 PROUSDDR: One FREE connect hour, per account, in both May
and June 2004
NEWS 5 May 12 EXTEND option available in structure searching
NEWS 6 May 12 Polymer links for the POLYLINK command completed in REGISTRY
NEWS 7 May 17 FRFULL now available on STN
NEWS 8 May 27 New UPM (Update Code Maximum) field for more efficient patent
SDIs in Cplus
NEWS 9 May 27 Cplus super roles and document types searchable in REGISTRY
NEWS 10 May 27 Explore APOLLIT with free connect time in June 2004
NEWS 11 Jun 22 STN Patent Forums to be held July 19-22, 2004

NEWS EXPRESS MARCH 31 CURRENT WINDOWS VERSION IS V7.00A, CURRENT
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 26 APRIL 2004
NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS INTER General Internet Information
NEWS LOGIN Welcome Banner and News Items
NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
specific topic.

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 08:55:03 ON 24 JUN 2004

=>

Uploading

THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE

Do you want to switch to the Registry File?

Choice (Y/n):

Switching to the Registry File...

Some commands only work in certain files. For example, the EXPAND
command can only be used to look at the index in a file which has an

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index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

=> FILE REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 08:55:18 ON 24 JUN 2004
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 23 JUN 2004 HIGHEST RN 698346-19-9
DICTIONARY FILE UPDATES: 23 JUN 2004 HIGHEST RN 698346-19-9

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

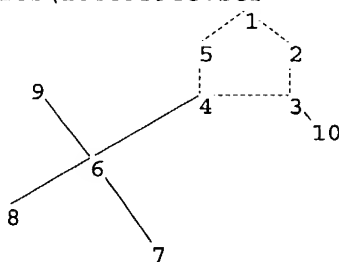
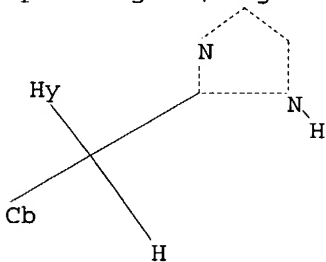
Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10689394c.str



chain nodes :
6 7 8 9 10
ring nodes :
1 2 3 4 5
chain bonds :
3-10 4-6 6-7 6-8 6-9
ring bonds :
1-2 1-5 2-3 3-4 4-5
exact/norm bonds :
1-2 1-5 2-3 3-4 4-5 6-9
exact bonds :
3-10 4-6 6-7 6-8
isolated ring systems :
containing 1 :

Match level :

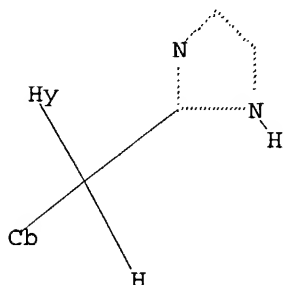
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:CLASS 9:Atom 10:CLASS

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 08:55:34 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 9355 TO ITERATE

10.7% PROCESSED 1000 ITERATIONS
 INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
 SEARCH TIME: 00.00.01

0 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
 BATCH **COMPLETE**
 PROJECTED ITERATIONS: 181305 TO 192895
 PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s l1 sss full

FULL SEARCH INITIATED 08:55:40 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 188347 TO ITERATE

100.0% PROCESSED 188347 ITERATIONS
 SEARCH TIME: 00.00.06

27 ANSWERS

L3 27 SEA SSS FUL L1

=> FIL CAPLUS

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
155.42	155.63

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 08:55:51 ON 24 JUN 2004

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

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FILE COVERS 1907 - 24 Jun 2004 VOL 140 ISS 26
FILE LAST UPDATED: 23 Jun 2004 (20040623/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l3

L4

7 L3

=> s l4 and thu

138 THU

2163111 THUS

2163234 THU

(THU OR THUS)

L5

4 L4 AND THU

=> s l4 and py<=2002

22503751 PY<=2002

L6

5 L4 AND PY<=2002

=> d l4 ibib abs hitstr tot

L4 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:348013 CAPLUS

DOCUMENT NUMBER: 140:357344

TITLE:

INVENTOR(S):

Preparation of imidazolines as hypoglycemic agents
Rault, Sylvain; Kopp, Marina; Lancelot, Jean-Charles;
Lemaître, Stéphane; Caignard, Daniel-Henri;
Bizot-espiard, Jean-Guy; Renard, Pierre

PATENT ASSIGNEE(S): Les Laboratoires Servier, Fr.

SOURCE: Eur. Pat. Appl., 13 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1413579	A1	<u>20040428</u>	EP 2003-292634	20031022
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
FR 2846328	A1	20040430	FR 2002-13194	20021023
JP <u>2004143167</u>	A2	20040520	JP 2003-357410	<u>20031017</u>
<u>US 2004087638</u>	A1	20040506	US 2003-689394	<u>20031020</u>

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imide values

PRIORITY APPLN. INFO.:

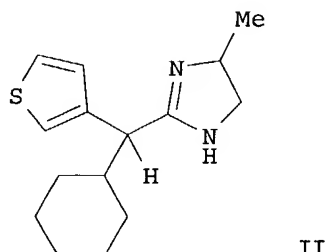
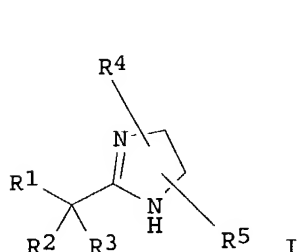
FR 2002-13194

A 20021023

OTHER SOURCE(S):

MARPAT 140:357344

GI



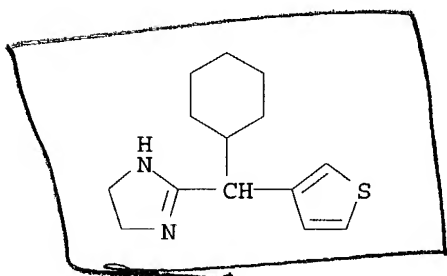
AB Title compds. I [wherein R1 = (un)substituted heteroaryl; R2 = (un)substituted cycloalkyl; R3 = H, alkyl; R4, R5 = independently H, halo, polyhalogeno/alkyl, etc.; their enantiomers, diastereomers, tautomers, and their salts of addition with a pharmaceutically acceptable acid or base; with provisos] were prepared as antidiabetic agents. For example, II was prepared by cyclocondensation of cyclohexyl(3-thienyl)acetonitrile (preparation given) with 1,2-propanediamine in the presence of PS5. II was tested for use as a drug for non-insulin dependent diabetes and hyperlipidemia associated with obesity (glycemia reduced 13 - 18% at 10 mg/kg). I are useful for treating diabetes mellitus type II, obesity, diabetes type I, hyperlipidemia, hypercholesterolemia, and cardiovascular complications.

IT 681821-53-4P, 2-[(Cyclohexyl)(thiophen-3-yl)methyl]-4,5-dihydro-1H-imidazole

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); PEP (Physical, engineering or chemical process); PYP (Physical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses) (hypoglycemic agent; preparation of imidazolines for treating non-insulin dependent diabetes and hyperlipidemia associated with obesity)

RN 681821-53-4 CAPLUS

CN 1H-Imidazole, 2-(cyclohexyl-3-thienylmethyl)-4,5-dihydro- (9CI) (CA INDEX NAME)



SPR is elected

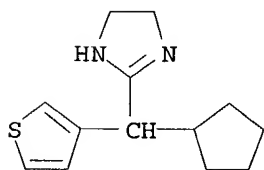
IT 681821-51-2P, 2-[(Cyclopentyl)(thiophen-3-yl)methyl]-4,5-dihydro-1H-imidazole 681821-52-3P, 2-[(Cyclohexyl)(thiophen-2-yl)methyl]-4,5-dihydro-1H-imidazole 681821-56-7P, 2-[(Cyclohexyl)(thiophen-3-yl)methyl]-4-methyl-4,5-dihydro-1H-imidazole 681821-57-8P, 2-[(Cyclohexyl)(thiophen-3-yl)methyl]-4,4-dimethyl-4,5-dihydro-1H-imidazole 681821-58-9P, 2-[(4-Methylcyclohexyl)(thiophen-3-yl)methyl]-4,5-dihydro-1H-imidazole 681821-59-0P, 2-[(Cyclohexyl)(1-methyl-1H-pyrrol-2-yl)methyl]-4,5-dihydro-1H-imidazole 681821-60-3P, 2-[(Cyclohexyl)(4,5-dihydro-1H-imidazol-2-yl)methyl]pyridine 681821-61-4P, 2-[(Cycloheptyl)(thiophen-

3yl)methyl]-4,5-dihydro-1H-imidazole **681821-62-5P**,
 2-[(Cycloheptyl)(thiophen-3-yl)methyl]-4-methyl-4,5-dihydro-1H-imidazole
681821-63-6P 681821-64-7P

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (hypoglycemic agent; preparation of imidazolines for treating non-insulin dependent diabetes and hyperlipidemia associated with obesity)

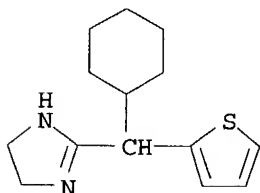
RN 681821-51-2 CAPLUS

CN 1H-Imidazole, 2-(cyclopentyl-3-thienylmethyl)-4,5-dihydro- (9CI) (CA INDEX NAME)



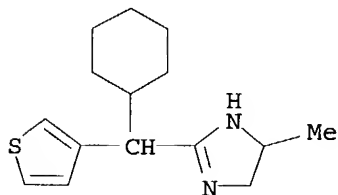
RN 681821-52-3 CAPLUS

CN 1H-Imidazole, 2-(cyclohexyl-2-thienylmethyl)-4,5-dihydro- (9CI) (CA INDEX NAME)



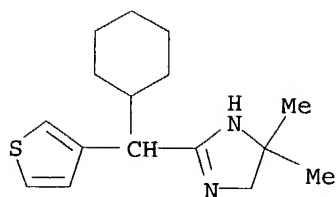
RN 681821-56-7 CAPLUS

CN 1H-Imidazole, 2-(cyclohexyl-3-thienylmethyl)-4,5-dihydro-4-methyl- (9CI) (CA INDEX NAME)

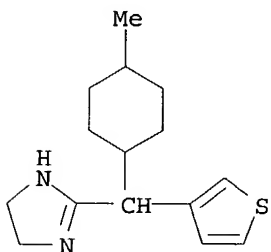


RN 681821-57-8 CAPLUS

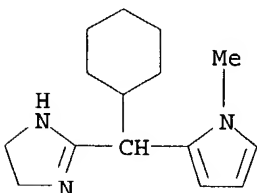
CN 1H-Imidazole, 2-(cyclohexyl-3-thienylmethyl)-4,5-dihydro-4,4-dimethyl- (9CI) (CA INDEX NAME)



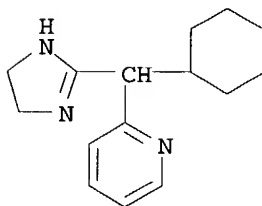
RN 681821-58-9 CAPLUS

CN 1H-Imidazole, 4,5-dihydro-2-[(4-methylcyclohexyl)-3-thienylmethyl]- (9CI)
(CA INDEX NAME)

RN 681821-59-0 CAPLUS

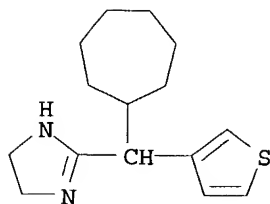
CN 1H-Imidazole, 2-[cyclohexyl(1-methyl-1H-pyrrol-2-yl)methyl]-4,5-dihydro-
(9CI) (CA INDEX NAME)

RN 681821-60-3 CAPLUS

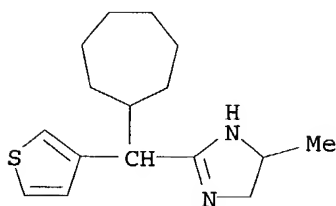
CN Pyridine, 2-[cyclohexyl(4,5-dihydro-1H-imidazol-2-yl)methyl]- (9CI) (CA
INDEX NAME)

RN 681821-61-4 CAPLUS

CN 1H-Imidazole, 2-(cycloheptyl-3-thienylmethyl)-4,5-dihydro- (9CI) (CA
INDEX NAME)



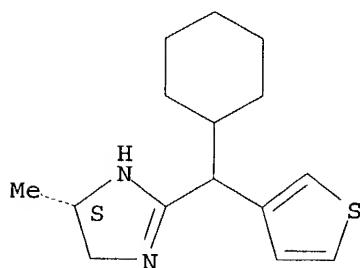
RN 681821-62-5 CAPLUS

CN 1H-Imidazole, 2-(cycloheptyl-3-thienylmethyl)-4,5-dihydro-4-methyl- (9CI)
(CA INDEX NAME)

RN 681821-63-6 CAPLUS

CN 1H-Imidazole, 2-(cyclohexyl-3-thienylmethyl)-4,5-dihydro-4-methyl-, (4S)-
(9CI) (CA INDEX NAME)

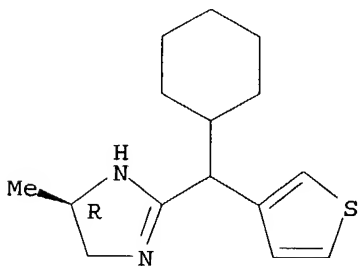
Absolute stereochemistry.



RN 681821-64-7 CAPLUS

CN 1H-Imidazole, 2-(cyclohexyl-3-thienylmethyl)-4,5-dihydro-4-methyl-, (4R)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 681821-54-5P 681821-55-6P

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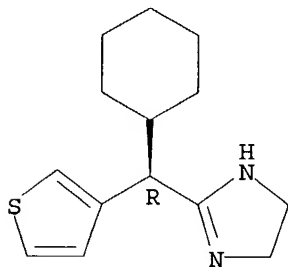
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of imidazolines for treating non-insulin dependent diabetes and hyperlipidemia associated with obesity)

RN 681821-54-5 CAPLUS

CN 1H-Imidazole, 2-[(R)-cyclohexyl-3-thienylmethyl]-4,5-dihydro- (9CI) (CA INDEX NAME)

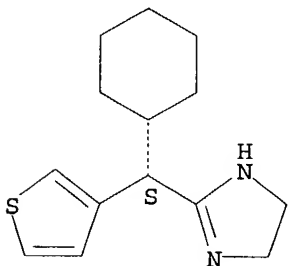
Absolute stereochemistry.



RN 681821-55-6 CAPLUS

CN 1H-Imidazole, 2-[(S)-cyclohexyl-3-thienylmethyl]-4,5-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:912361 CAPLUS

DOCUMENT NUMBER: 139:395813

TITLE: Preparation of 3-substituted 4-hydroxycoumarins as rodenticides

INVENTOR(S): Whittle, Alan John; Swanborough, Joseph John; Parry, David Rees; Knee, Andrew Jonathan; Sunley, Raymond Leo

PATENT ASSIGNEE(S): Syngenta Limited, UK

SOURCE: Brit. UK Pat. Appl., 70 pp.

CODEN: BAXXDU

DOCUMENT TYPE: Patent

LANGUAGE: English

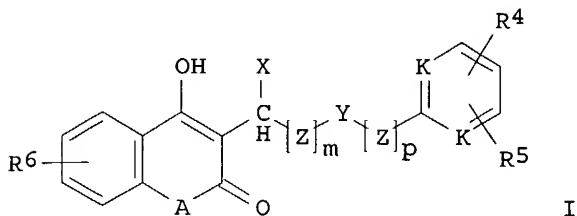
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

06/24/2004

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2388596	A1	20031119	GB 2002-21679	20020918
PRIORITY APPLN. INFO.:			GB 2002-11019	A 20020514
OTHER SOURCE(S):		MARPAT 139:395813		

GI



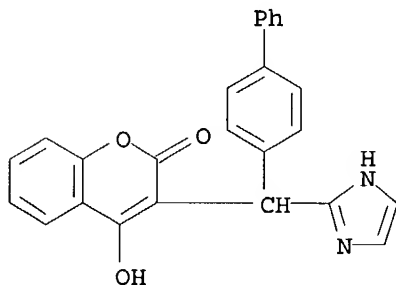
AB The rodenticidal compds. [I; A = O, S; K = CH, N; X = (un)substituted Ph, 2-pyrimidinyl, thienyl, etc.; Y = (un)substituted 1,4-phenylene, 2,5-pyrimidylene; Z = O, S, (CH₂)_n, alkenylene, etc.; R₄-R₆ = H, halo, CN, alkyl, etc.; n = 1-2; m, p = 0-1], were prepared Thus, refluxing 4-hydroxycoumarin with (4'-bromobiphenyl-4-yl)furan-2-ylmethanol (preparation given) in PhMe afforded 3-[(4'-bromobiphenyl-4-yl)furan-2-ylmethyl]-4-hydroxycoumarin which showed 100% mortality in test on *Rattus norvegicus* at 40 mg/kg.

IT 625451-12-9P

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 3-substituted 4-hydroxycoumarins as rodenticides)

RN 625451-12-9 CAPLUS

CN 2H-1-Benzopyran-2-one, 3-([1,1'-biphenyl]-4-yl-1H-imidazol-2-ylmethyl)-4-hydroxy- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

7

THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:386058 CAPLUS

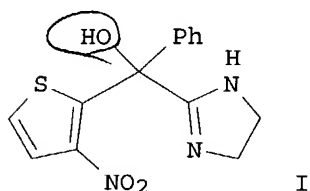
DOCUMENT NUMBER: 133:237923

TITLE: Carbon-carbon bond formation via thermal intermolecular hydrogen atom transfer: two serendipitous heterocyclic examples

AUTHOR(S): Hamlyn, Richard J.; Jones, Richard H.; Ramsden, Christopher A.

10689394

CORPORATE SOURCE: School of Chemistry and Physics, Keele University,
Keele, ST5 5BG, UK
SOURCE: Perkin 1 (2000), (12), 1811-1813
CODEN: PERKF9
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 133:237923
GI

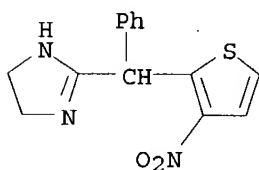


AB Formation of an anomalous 3-nitrothiophene product, encountered during the preparation of potential bioreductive anti-cancer agents, is rationalized in terms of a hydrogen atom transfer mechanism which also accounts for the unexpected formation of previously described 5,5'-biimidazoles. Thus, reaction of 2-chloro-3-nitrothiophene with 2-benzyl-4,5-dihydro-1H-imidazole in propionitrile containing mol. sieves gave 62% imidazolylthienylmethanol I, which was x-ray crystallog. characterized.

IT **292862-93-2P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal structure of)

RN 292862-93-2 CAPLUS

CN 1H-Imidazole, 4,5-dihydro-2-[(3-nitro-2-thienyl)phenylmethyl]-, monohydrobromide (9CI) (CA INDEX NAME)



● HBr

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1993:671157 CAPLUS
DOCUMENT NUMBER: 119:271157
TITLE: Fused benzeneoxyacetic acid derivative PGI2 receptor agonists
INVENTOR(S): Hamanaka, Nobuyuki; Takahashi, Kanji; Tokumoto, Hidekado
PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 110 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 548949	A2	19930630	EP 1992-121898	19921223
EP 548949	A3	19931006		
EP 548949	B1	19970917		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 05178832	A2	19930720	JP 1991-360502	19911227
JP 07025854	A2	19950127	JP 1992-209587	19920714
US 5461045	A	19951024	US 1992-912999	19920714
CA 2073917	AA	19940116	CA 1992-2073917	19920715
CA 2085844	AA	19930628	CA 1992-2085844	19921218
AT 158282	E	19971015	AT 1992-121898	19921223
ES 2108076	T3	19971216	ES 1992-121898	19921223
US 5389666	A	19950214	US 1992-997492	19921228
JP 07145057	A2	19950606	JP 1992-360608	19921228
JP 3419009	B2	20030623		
US 5589496	A	19961231	US 1994-334395	19941103
US 5849919	A	19981215	US 1996-722456	19960927
US 5962439	A	19991005	US 1998-168424	19981007

PRIORITY APPLN. INFO.:

JP 1991-360502	A	19911227
JP 1992-209587	A	19920714
US 1992-997492	A3	19921228
US 1994-334395	A3	19941103
US 1996-722456	A3	19960927

OTHER SOURCE(S): MARPAT 119:271157

GI For diagram(s), see printed CA Issue.

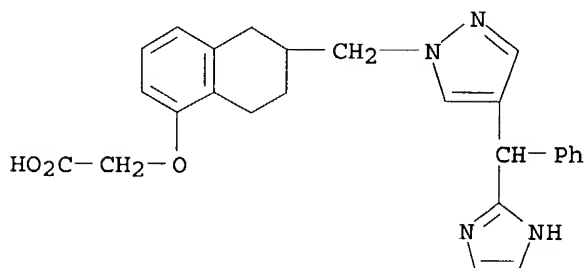
AB The title compds. I [A = (un)substituted heterocyclyl; B = alkylene, alkenylene; ring D = carbocyclic ring; R1 = HO, C1-12 alkoxy, (un)substituted amino], which demonstrate PGI2 receptor agonist activity and are useful in the treatment of thrombosis, arteriosclerosis, ischemic heart diseases, gastric ulcer, or hypertension (no data), are prepared and I-containing formulations presented. Thus, pyrazole derivative II was prepared which demonstrated 50% inhibitory concentration against human blood platelet aggregation of 0.043 μ M in human blood-derived. platelet-rich plasma.

IT 150558-89-7

RL: RCT (Reactant); RACT (Reactant or reagent)
 (PGI2 receptor agonist activity of)

RN 150558-89-7 CAPLUS

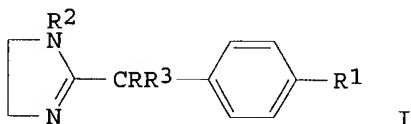
CN Acetic acid, [[5,6,7,8-tetrahydro-6-[[4-(1H-imidazol-2-ylphenylmethyl)-1H-pyrazol-1-yl]methyl]-1-naphthalenyl]oxy]- (9CI) (CA INDEX NAME)



L4 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1976:150628 CAPLUS
 DOCUMENT NUMBER: 84:150628
 TITLE: 2-[α -(2-Pyridyl)benzyl]imidazolines and derivatives
 INVENTOR(S): Walter, Lewis A.
 PATENT ASSIGNEE(S): Schering A.-G., USA
 SOURCE: U.S., 9 pp. Continuation of U.S. 3,770,737.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3932431	A	19760113	US 1973-412852	19731105
SU 382284	D	19730522	SU 1969-1387182	19690207
US 3770737	A	19731106	US 1970-49578	19700624
US 4081544	A	19780328	US 1976-754396	19761227
PRIORITY APPLN. INFO.:			US 1968-704263	19680209
			US 1970-49578	19700624
			SU 1969-1315880	19690207
			US 1973-412852	19731105
			US 1975-637498	19751204

GI



AB Imidazolines I (R = 2-pyridyl, 2-thiazolyl, 2-pyrazinyl, 6-chloro-2-pyridyl, R1 = H, Cl, R2 = H, Me, Me2NCH2CH2, Ac, R3 = H, Me, OH), effective against Parkinson's disease in doses of 0.1-3 mg/kg daily and useful as antidepressants and inflammation inhibitors, were obtained by condensation of a heterocyclic nitrile with a diamine in the presence of S.

IT 24767-53-1P 24767-55-3P 24767-57-5P
 24783-44-6P 24783-45-7P 46864-37-3P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

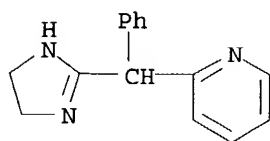
RN 24767-53-1 CAPLUS

CN Pyridine, 2-[(4,5-dihydro-1H-imidazol-1-yl)phenylmethyl]-,
 (2Z)-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

CRN 24783-44-6

CMF C15 H15 N3

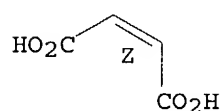


CM 2

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.



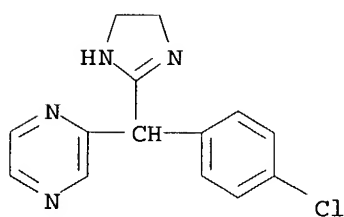
RN 24767-55-3 CAPLUS

CN Pyrazine, [(4-chlorophenyl)(4,5-dihydro-1H-imidazol-2-yl)methyl]-, (2Z)-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

CRN 24783-45-7

CMF C14 H13 Cl N4

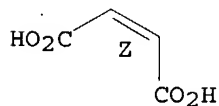


CM 2

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.



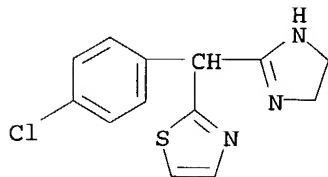
RN 24767-57-5 CAPLUS

CN Thiazole, 2-[(4-chlorophenyl)(4,5-dihydro-1H-imidazol-2-yl)methyl]-, (2Z)-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

CRN 46864-37-3

CMF C13 H12 Cl N3 S

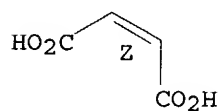


CM 2

CRN 110-16-7

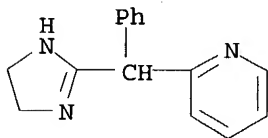
CMF C4 H4 O4

Double bond geometry as shown.



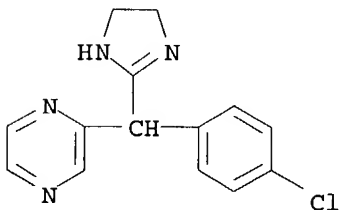
RN 24783-44-6 CAPLUS

CN Pyridine, 2-[(4,5-dihydro-1H-imidazol-2-yl)phenylmethyl] - (9CI) (CA INDEX NAME)



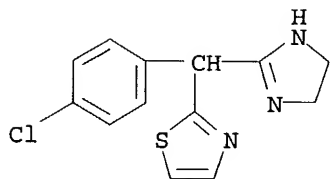
RN 24783-45-7 CAPLUS

CN Pyrazine, [(4-chlorophenyl)(4,5-dihydro-1H-imidazol-2-yl)methyl] - (9CI) (CA INDEX NAME)

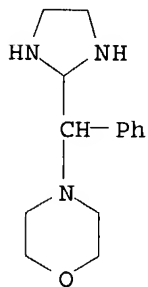


RN 46864-37-3 CAPLUS

CN Thiazole, 2-[(4-chlorophenyl)(4,5-dihydro-1H-imidazol-2-yl)methyl] - (9CI) (CA INDEX NAME)



L4 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1973:418667 CAPLUS
 DOCUMENT NUMBER: 79:18667
 TITLE: Reaction of 1,2-(dialkylamino)ethanes with
 α -substituted aldehydes and ketones. Formation
 of cyclic amins and tetrahydropyrazine
 AUTHOR(S): Duhamel, Pierre; Duhamel, Lucette; Siret, Patrice
 CORPORATE SOURCE: Lab. Chim. Org., Fac. Sci. Tech. Rouen,
 Mont-Saint-Aignan, Fr.
 SOURCE: Comptes Rendus des Seances de l'Academie des Sciences,
 Serie C: Sciences Chimiques (1973), 276(15), 1319-22
 CODEN: CHDCAQ; ISSN: 0567-6541
 DOCUMENT TYPE: Journal
 LANGUAGE: French
 OTHER SOURCE(S): CASREACT 79:18667
 GI For diagram(s), see printed CA Issue.
 AB Ten amins (I, R = Me, Et; R1 = Et, Me3C, Ph, etc.; R2 = Cl, Br, Et3N,
 etc.) were prepared from R1R2CHCHO and RNHCH2CH2NHR. I heated at
 180° gave tetrahydropyrazines II.
 IT **41711-84-6P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 41711-84-6 CAPLUS
 CN Morpholine, 4-(2-imidazolidinylphenylmethyl)- (9CI) (CA INDEX NAME)



L4 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1970:31790 CAPLUS
 DOCUMENT NUMBER: 72:31790
 TITLE: Cyclic amidines
 INVENTOR(S): Walter, Lewis A.
 PATENT ASSIGNEE(S): Scherico Ltd.
 SOURCE: Ger. Offen., 71 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1905353	A	19690904	DE 1969-1905353	19690204
DE 1905353	B2	19781221		
DE 1905353	C3	19790830		
CH 515254	A	19711115	CH 1969-515254	19690204
AT 294819	B	19711210	AT 1970-4263	19690204
GB 1259005	A	19720105	GB 1969-1259005	19690204
AT 295520	B	19720110	AT 1970-4264	19690204
CH 521363	A	19720415	CH 1969-521363	19690204
CH 521364	A	19720415	CH 1969-521364	19690204
CH 521362	A	19720415	CH 1969-521362	19690204
NO 126228	B	19730108	NO 1969-408	19690204
CA 941829	A1	19740212	CA 1969-42002	19690204
BE 727951	A	19690805	BE 1969-727951	19690205
BR 6906150	A0	19730412	BR 1969-206150	19690205
SE 372946	B	19750120	SE 1969-1538	19690205
JP 51014514	B4	19760510	JP 1969-8194	19690205
FR 2001655	A5	19690926	FR 1969-2936	19690207
SU 365883	D	19730108	SU 1969-1315880	19690207
SU 382284	D	19730522	SU 1969-1387182	19690207
CS 154613	P	19740430	CS 1970-5800	19690207
CS 154614	P	19740430	CS 1970-5801	19690207
PRIORITY APPLN. INFO.:			US 1968-704263	19680209
			SU 1969-1315880	19690207

GI For diagram(s), see printed CA Issue.

AB Cyclic amidines with antidepressive activity were prepared Thus, a mixture of α -(2-pyridyl)benzyl cyanide 19.4, ethylenediamine 6.6, and S 0.2 g was refluxed 5 hr under N to give I (R = R1 = H), m. 134-6°; maleate m. 132-5°. A mixture of 15 g finely divided NaNH₂, 10 g PhNHMe, and 400 ml Et₂O was refluxed 1 hr, treated with 14 g N-methyl-N-phenylcyanamide and 15 g p-chlorobenzyl cyanide and refluxed 1 hr to give p-chlorophenylmalononitrile (II). Anhydrous H₂S (8 g) was added at 20-5° to a solution of 20 g II and 20 g Et₃N in 200 ml HCONMe₂ and the mixture kept 5 hr to give α -(p-chlorophenyl)- α -cyanothioacetamide, which (20 g), 6.6 g ethylenediamine, and 500 ml C₆H₆ was refluxed 6 hr to give 2-(α -cyano-p-chlorobenzyl)imidazolin e (III). Et₃N (10 g) and 10 g anhydrous H₂S were successively added to a solution

of 20 g III in 200 ml HCONMe₂ and the mixture was kept overnight at 20-5°. The crude product was treated with an equivalent amount ClCH₂CHO in 100 ml EtOH and the mixture was kept 0.5 hr at 10° and refluxed 0.5 hr to give IV as the maleate, m. 145-7°. A mixture of 25 g Me α -(2-pyridyl)-p-chlorophenylacetate and ethylenediamine was refluxed 10 hr and the product dissolved in 500 ml xylene and refluxed under N to give I (R = H, R1 = Cl); maleate m. 156-8°. A solution of oily III, prepared as above, in 200 ml absolute EtOH was saturated with anhydrous HCl at 0°, kept 24 hr at 20-5°, evaporated in vacuo at <30°, dissolved in 100 ml anhydrous EtOH, added to 200 ml EtOH saturated with NH₃, and stirred 2 hr at 20-5°. The product was added in 100 ml EtOH to an aqueous alc. solution of malonaldehyde and the mixture refluxed 3 hr under N to give V, b. 180-3°. 2-[α -(2-Pyridyl)benzyl]imidazoline (16 g) was added to a stirred suspension of 8.5 g NaNH₂ in 300 ml liquid NH₃. After 10 min, the mixture was added in a cooled autoclave to 15.8 g 2-bromopyridine and stirred 6 hr at 50° to give I (R = R1 = H), m. 135-6°, 20 g of which was dissolved in 500 ml anhydrous C₆H₆. The

solution was stirred 20 hr in dry air to give I (R = OH, R1 = H), m.
152-4°; HCl salt m. 206-8°.

IT 24767-53-1P 24767-55-3P 24767-57-5P

24783-44-6P 24783-45-7P 24784-28-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

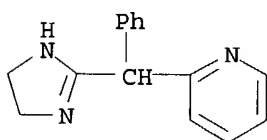
RN 24767-53-1 CAPLUS

CN Pyridine, 2-[(4,5-dihydro-1H-imidazol-1-yl)phenylmethyl]-,
(2Z)-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

CRN 24783-44-6

CMF C15 H15 N3

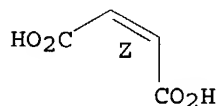


CM 2

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.



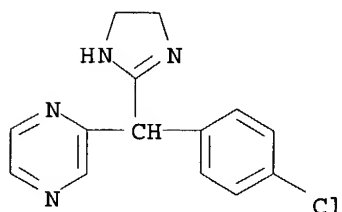
RN 24767-55-3 CAPLUS

CN Pyrazine, [(4-chlorophenyl) (4,5-dihydro-1H-imidazol-2-yl)methyl]-,
(2Z)-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

CRN 24783-45-7

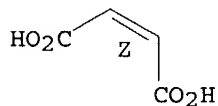
CMF C14 H13 Cl N4



CM 2

CRN 110-16-7
CMF C4 H4 O4

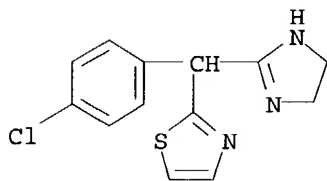
Double bond geometry as shown.



RN 24767-57-5 CAPLUS
CN Thiazole, 2-[(4-chlorophenyl)(4,5-dihydro-1H-imidazol-2-yl)methyl]-,
(2Z)-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

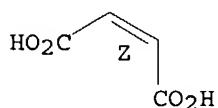
CRN 46864-37-3
CMF C13 H12 Cl N3 S



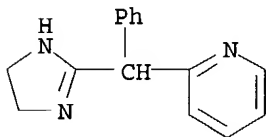
CM 2

CRN 110-16-7
CMF C4 H4 O4

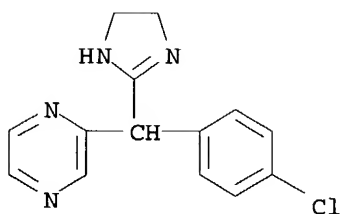
Double bond geometry as shown.



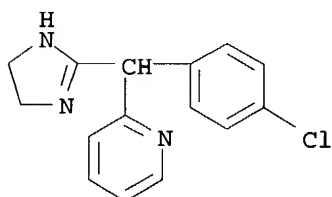
RN 24783-44-6 CAPLUS
CN Pyridine, 2-[(4,5-dihydro-1H-imidazol-2-yl)phenylmethyl]- (9CI) (CA INDEX NAME)



RN 24783-45-7 CAPLUS
CN Pyrazine, [(4-chlorophenyl)(4,5-dihydro-1H-imidazol-2-yl)methyl]- (9CI)
(CA INDEX NAME)



RN 24784-28-9 CAPLUS
 CN Pyridine, 2-(p-chloro-α-2-imidazolin-2-ylbenzyl)- (8CI) (CA INDEX NAME)

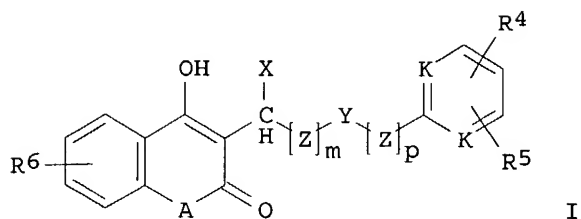


=> d 15 ibib abs hitstr tot

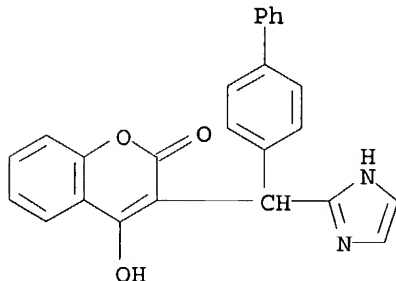
L5 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2003:912361 CAPLUS
 DOCUMENT NUMBER: 139:395813
 TITLE: Preparation of 3-substituted 4-hydroxycoumarins as
 rodenticides
 INVENTOR(S): Whittle, Alan John; Swanborough, Joseph John; Parry,
 David Rees; Knee, Andrew Jonathan; Sunley, Raymond Leo
 PATENT ASSIGNEE(S): Syngenta Limited, UK
 SOURCE: Brit. UK Pat. Appl., 70 pp.
 CODEN: BAXXDU
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2388596	A1	20031119	GB 2002-21679	20020918
PRIORITY APPLN. INFO.:			GB 2002-11019	A 20020514
OTHER SOURCE(S):		MARPAT 139:395813		

GI



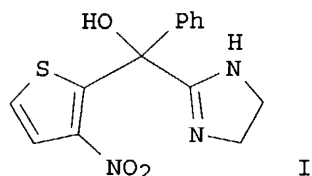
- AB The rodenticidal compds. [I; A = O, S; K = CH, N; X = (un)substituted Ph, 2-pyrimidinyl, thienyl, etc.; Y = (un)substituted 1,4-phenylene, 2,5-pyrimidylene; Z = O, S, (CH₂)_n, alkenylene, etc.; R₄-R₆ = H, halo, CN, alkyl, etc.; n = 1-2; m, p = 0-1], were prepared Thus, refluxing 4-hydroxycoumarin with (4'-bromobiphenyl-4-yl)furan-2-ylmethanol (preparation given) in PhMe afforded 3-[(4'-bromobiphenyl-4-yl)furan-2-ylmethyl]-4-hydroxycoumarin which showed 100% mortality in test on Rattus norvegicus at 40 mg/kg.
- IT **625451-12-9P**
 RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of 3-substituted 4-hydroxycoumarins as rodenticides)
- RN 625451-12-9 CAPLUS
- CN 2H-1-Benzopyran-2-one, 3-([1,1'-biphenyl]-4-yl-1H-imidazol-2-ylmethyl)-4-hydroxy- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2000:386058 CAPLUS
 DOCUMENT NUMBER: 133:237923
 TITLE: Carbon-carbon bond formation via thermal intermolecular hydrogen atom transfer: two serendipitous heterocyclic examples
 AUTHOR(S): Hamlyn, Richard J.; Jones, Richard H.; Ramsden, Christopher A.
 CORPORATE SOURCE: School of Chemistry and Physics, Keele University, Keele, ST5 5BG, UK
 SOURCE: Perkin 1 (2000), (12), 1811-1813
 CODEN: PERKF9
 PUBLISHER: Royal Society of Chemistry
 DOCUMENT TYPE: Journal
 LANGUAGE: English

OTHER SOURCE(S): CASREACT 133:237923
GI



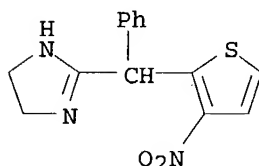
AB Formation of an anomalous 3-nitrothiophene product, encountered during the preparation of potential bioreductive anti-cancer agents, is rationalized in terms of a hydrogen atom transfer mechanism which also accounts for the unexpected formation of previously described 5,5'-biimidazoles.
Thus, reaction of 2-chloro-3-nitrothiophene with 2-benzyl-4,5-dihydro-1H-imidazole in propionitrile containing mol. sieves gave 62% imidazolylthienylmethanol I, which was x-ray crystallog. characterized.

IT 292862-93-2P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal structure of)

RN 292862-93-2 CAPLUS

CN 1H-Imidazole, 4,5-dihydro-2-[(3-nitro-2-thienyl)phenylmethyl]-,
monohydrobromide (9CI) (CA INDEX NAME)



● HBr

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1993:671157 CAPLUS

DOCUMENT NUMBER: 119:271157

TITLE: Fused benzeneoxyacetic acid derivative PGI2 receptor agonists

INVENTOR(S): Hamanaka, Nobuyuki; Takahashi, Kanji; Tokumoto, Hidekado

PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 110 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND DATE

APPLICATION NO. DATE

10689394

EP 548949	A2	19930630	EP 1992-121898	19921223
EP 548949	A3	19931006		
EP 548949	B1	19970917		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 05178832	A2	19930720	JP 1991-360502	19911227
JP 07025854	A2	19950127	JP 1992-209587	19920714
US 5461045	A	19951024	US 1992-912999	19920714
CA 2073917	AA	19940116	CA 1992-2073917	19920715
CA 2085844	AA	19930628	CA 1992-2085844	19921218
AT 158282	E	19971015	AT 1992-121898	19921223
ES 2108076	T3	19971216	ES 1992-121898	19921223
US 5389666	A	19950214	US 1992-997492	19921228
JP 07145057	A2	19950606	JP 1992-360608	19921228
JP 3419009	B2	20030623		
US 5589496	A	19961231	US 1994-334395	19941103
US 5849919	A	19981215	US 1996-722456	19960927
US 5962439	A	19991005	US 1998-168424	19981007

PRIORITY APPLN. INFO.:

JP 1991-360502	A	19911227
JP 1992-209587	A	19920714
US 1992-997492	A3	19921228
US 1994-334395	A3	19941103
US 1996-722456	A3	19960927

OTHER SOURCE(S): MARPAT 119:271157

GI For diagram(s), see printed CA Issue.

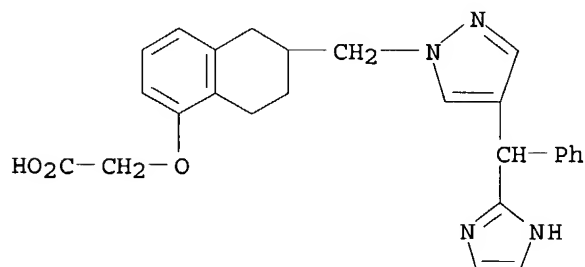
AB The title compds. I [A = (un)substituted heterocyclyl; B = alkylene, alkenylene; ring D = carbocyclic ring; R1 = HO, C1-12 alkoxy, (un)substituted amino], which demonstrate PGI2 receptor agonist activity and are useful in the treatment of thrombosis, arteriosclerosis, ischemic heart diseases, gastric ulcer, or hypertension (no data), are prepared and I-containing formulations presented. **Thus**, pyrazole derivative II was prepared which demonstrated 50% inhibitory concentration against human blood platelet aggregation of 0.043 μ M in human blood-derived. platelet-rich plasma.

IT 150558-89-7

RL: RCT (Reactant); RACT (Reactant or reagent)
(PGI2 receptor agonist activity of)

RN 150558-89-7 CAPLUS

CN Acetic acid, [[5,6,7,8-tetrahydro-6-[[4-(1H-imidazol-2-ylphenylmethyl)-1H-pyrazol-1-yl]methyl]-1-naphthalenyl]oxy]- (9CI) (CA INDEX NAME)



L5 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1970:31790 CAPLUS

DOCUMENT NUMBER: 72:31790

TITLE: Cyclic amidines

INVENTOR(S): Walter, Lewis A.

PATENT ASSIGNEE(S): Scherico Ltd.
 SOURCE: Ger. Offen., 71 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1905353	A	19690904	DE 1969-1905353	19690204
DE 1905353	B2	19781221		
DE 1905353	C3	19790830		
CH 515254	A	19711115	CH 1969-515254	19690204
AT 294819	B	19711210	AT 1970-4263	19690204
GB 1259005	A	19720105	GB 1969-1259005	19690204
AT 295520	B	19720110	AT 1970-4264	19690204
CH 521363	A	19720415	CH 1969-521363	19690204
CH 521364	A	19720415	CH 1969-521364	19690204
CH 521362	A	19720415	CH 1969-521362	19690204
NO 126228	B	19730108	NO 1969-408	19690204
CA 941829	A1	19740212	CA 1969-42002	19690204
BE 727951	A	19690805	BE 1969-727951	19690205
BR 6906150	A0	19730412	BR 1969-206150	19690205
SE 372946	B	19750120	SE 1969-1538	19690205
JP 51014514	B4	19760510	JP 1969-8194	19690205
FR 2001655	A5	19690926	FR 1969-2936	19690207
SU 365883	D	19730108	SU 1969-1315880	19690207
SU 382284	D	19730522	SU 1969-1387182	19690207
CS 154613	P	19740430	CS 1970-5800	19690207
CS 154614	P	19740430	CS 1970-5801	19690207
PRIORITY APPLN. INFO.:			US 1968-704263	19680209
			SU 1969-1315880	19690207

GI For diagram(s), see printed CA Issue.

AB Cyclic amidines with antidepressive activity were prepared Thus, a mixture of α -(2-pyridyl)benzyl cyanide 19.4, ethylenediamine 6.6, and S 0.2 g was refluxed 5 hr under N to give I (R = R1 = H), m. 134-6°; maleate m. 132-5°. A mixture of 15 g finely divided NaNH₂, 10 g PhNHMe, and 400 ml Et₂O was refluxed 1 hr, treated with 14 g N-methyl-N-phenylcyanamide and 15 g p-chlorobenzyl cyanide and refluxed 1 hr to give p-chlorophenylmalononitrile (II). Anhydrous H₂S (8 g) was added at 20-5° to a solution of 20 g II and 20 g Et₃N in 200 ml HCONMe₂ and the mixture kept 5 hr to give α -(p-chlorophenyl)- α -cyanothioacetamide, which (20 g), 6.6 g ethylenediamine, and 500 ml C₆H₆ was refluxed 6 hr to give 2-(α -cyano-p-chlorobenzyl)imidazolin e (III).. Et₃N (10 g) and 10 g anhydrous H₂S were successively added to a solution of 20 g III in 200 ml HCONMe₂ and the mixture was kept overnight at 20-5°. The crude product was treated with an equivalent amount ClCH₂CHO in 100 ml EtOH and the mixture was kept 0.5 hr at 10° and refluxed 0.5 hr to give IV as the maleate, m. 145-7°. A mixture of 25 g Me α -(2-pyridyl)-p-chlorophenylacetate and ethylenediamine was refluxed 10 hr and the product dissolved in 500 ml xylene and refluxed under N to give I (R = H, R1 = Cl); maleate m. 156-8°. A solution of oily III, prepared as above, in 200 ml absolute EtOH was saturated with anhydrous HCl at 0°, kept 24 hr at 20-5°, evaporated in vacuo at <30°, dissolved in 100 ml anhydrous EtOH, added to 200 ml EtOH saturated with NH₃, and stirred 2 hr at 20-5°. The product was added in 100 ml EtOH to an aqueous alc. solution of malonaldehyde and the mixture refluxed 3 hr under N to

give V, b. 180-3°. 2-[α -(2-Pyridyl)benzyl]imidazoline (16 g) was added to a stirred suspension of 8.5 g NaNH₂ in 300 ml liquid NH₃. After 10 min, the mixture was added in a cooled autoclave to 15.8 g 2-bromopyridine and stirred 6 hr at 50° to give I (R = R₁ = H), m. 135-6°, 20 g of which was dissolved in 500 ml anhydrous C₆H₆. The solution was stirred 20 hr in dry air to give I (R = OH, R₁ = H), m. 152-4°; HCl salt m. 206-8°.

IT 24767-53-1P 24767-55-3P 24767-57-5P

24783-44-6P 24783-45-7P 24784-28-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

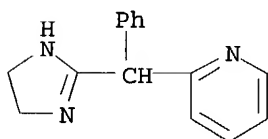
RN 24767-53-1 CAPLUS

CN Pyridine, 2-[(4,5-dihydro-1H-imidazol-1-yl)phenylmethyl]-,
(2Z)-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

CRN 24783-44-6

CMF C15 H15 N3

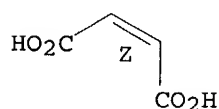


CM 2

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.



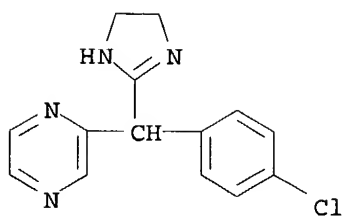
RN 24767-55-3 CAPLUS

CN Pyrazine, [(4-chlorophenyl)(4,5-dihydro-1H-imidazol-2-yl)methyl]-,
(2Z)-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

CRN 24783-45-7

CMF C14 H13 Cl N4

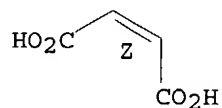


CM 2

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.



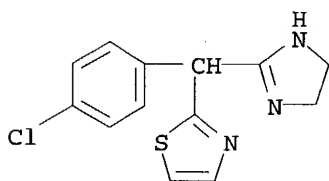
RN 24767-57-5 CAPLUS

CN Thiazole, 2-[(4-chlorophenyl)(4,5-dihydro-1H-imidazol-2-yl)methyl]-,
(2Z)-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

CRN 46864-37-3

CMF C13 H12 Cl N3 S

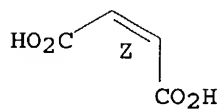


CM 2

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.

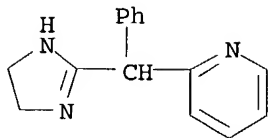


RN 24783-44-6 CAPLUS

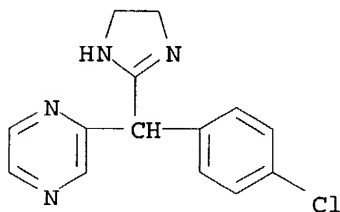
CN Pyridine, 2-[(4,5-dihydro-1H-imidazol-2-yl)phenylmethyl]- (9CI) (CA INDEX

10689394

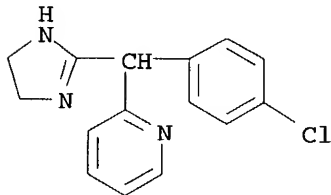
NAME)



RN 24783-45-7 CAPLUS

CN Pyrazine, [(4-chlorophenyl) (4,5-dihydro-1H-imidazol-2-yl)methyl] - (9CI)
(CA INDEX NAME)

RN 24784-28-9 CAPLUS

CN Pyridine, 2-(p-chloro- α -2-imidazolin-2-ylbenzyl) - (8CI) (CA INDEX
NAME)

=> d l6 ibib abs hitstr tot

L6 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:386058 CAPLUS

DOCUMENT NUMBER: 133:237923

TITLE: Carbon-carbon bond formation via thermal
intermolecular hydrogen atom transfer: two
serendipitous heterocyclic examplesAUTHOR(S): Hamlyn, Richard J.; Jones, Richard H.; Ramsden,
Christopher A.CORPORATE SOURCE: School of Chemistry and Physics, Keele University,
Keele, ST5 5BG, UK

SOURCE: Perkin 1 (2000), (12), 1811-1813

CODEN: PERKF9

PUBLISHER: Royal Society of Chemistry

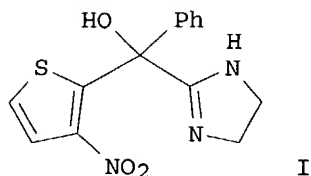
DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 133:237923

GI

10689394

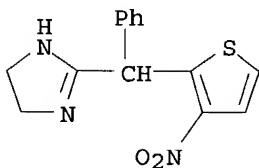


AB Formation of an anomalous 3-nitrothiophene product, encountered during the preparation of potential bioreductive anti-cancer agents, is rationalized in terms of a hydrogen atom transfer mechanism which also accounts for the unexpected formation of previously described 5,5'-biimidazoles. Thus, reaction of 2-chloro-3-nitrothiophene with 2-benzyl-4,5-dihydro-1H-imidazole in propionitrile containing mol. sieves gave 62% imidazolylthienylmethanol I, which was x-ray crystallog. characterized.

IT **292862-93-2P**
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (preparation and crystal structure of)

RN 292862-93-2 CAPLUS

CN 1H-Imidazole, 4,5-dihydro-2-[(3-nitro-2-thienyl)phenylmethyl]-,
 monohydrobromide (9CI) (CA INDEX NAME)



● HBr

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1993:671157 CAPLUS

DOCUMENT NUMBER: 119:271157

TITLE: Fused benzeneoxyacetic acid derivative PGI2 receptor agonists

INVENTOR(S): Hamanaka, Nobuyuki; Takahashi, Kanji; Tokumoto, Hidekado

PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 110 pp.
 CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 548949	A2	19930630	EP 1992-121898	19921223 <--
EP 548949	A3	19931006		

06/24/2004

EP 548949 B1 19970917
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE
 JP 05178832 A2 19930720 JP 1991-360502 19911227 <--
 JP 07025854 A2 19950127 JP 1992-209587 19920714 <--
 US 5461045 A 19951024 US 1992-912999 19920714 <--
 CA 2073917 AA 19940116 CA 1992-2073917 19920715 <--
 CA 2085844 AA 19930628 CA 1992-2085844 19921218 <--
 AT 158282 E 19971015 AT 1992-121898 19921223 <--
 ES 2108076 T3 19971216 ES 1992-121898 19921223 <--
 US 5389666 A 19950214 US 1992-997492 19921228 <--
 JP 07145057 A2 19950606 JP 1992-360608 19921228 <--
 JP 3419009 B2 20030623
 US 5589496 A 19961231 US 1994-334395 19941103 <--
 US 5849919 A 19981215 US 1996-722456 19960927 <--
 US 5962439 A 19991005 US 1998-168424 19981007 <--

PRIORITY APPLN. INFO.:

JP 1991-360502 A 19911227
 JP 1992-209587 A 19920714
 US 1992-997492 A3 19921228
 US 1994-334395 A3 19941103
 US 1996-722456 A3 19960927

OTHER SOURCE(S): MARPAT 119:271157

GI For diagram(s), see printed CA Issue.

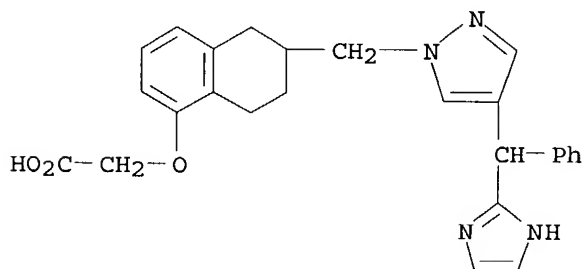
AB The title compds. I [A = (un)substituted heterocyclyl; B = alkylene, alkenylene; ring D = carbocyclic ring; R1 = HO, C1-12 alkoxy, (un)substituted amino], which demonstrate PGI2 receptor agonist activity and are useful in the treatment of thrombosis, arteriosclerosis, ischemic heart diseases, gastric ulcer, or hypertension (no data), are prepared and I-containing formulations presented. Thus, pyrazole derivative II was prepared which demonstrated 50% inhibitory concentration against human blood platelet aggregation of 0.043 μ M in human blood-derived. platelet-rich plasma.

IT 150558-89-7

RL: RCT (Reactant); RACT (Reactant or reagent)
 (PGI2 receptor agonist activity of)

RN 150558-89-7 CAPLUS

CN Acetic acid, [[5,6,7,8-tetrahydro-6-[[4-(1H-imidazol-2-ylphenylmethyl)-1H-pyrazol-1-yl]methyl]-1-naphthalenyl]oxy]- (9CI) (CA INDEX NAME)



L6 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1976:150628 CAPLUS

DOCUMENT NUMBER: 84:150628

TITLE: 2-[α -(2-Pyridyl)benzyl]imidazolines and derivatives

INVENTOR(S): Walter, Lewis A.

PATENT ASSIGNEE(S): Schering A.-G., USA

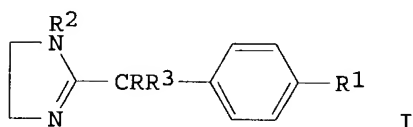
SOURCE: U.S., 9 pp. Continuation of U.S. 3,770,737.
 CODEN: USXXAM

06/24/2004

DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3932431	A	19760113	US 1973-412852	19731105 <--
SU 382284	D	19730522	SU 1969-1387182	19690207 <--
US 3770737	A	19731106	US 1970-49578	19700624 <--
US 4081544	A	19780328	US 1976-754396	19761227 <--
PRIORITY APPLN. INFO.:			US 1968-704263	19680209
			US 1970-49578	19700624
			SU 1969-1315880	19690207
			US 1973-412852	19731105
			US 1975-637498	19751204

GI



AB Imidazolines I (R = 2-pyridyl, 2-thiazolyl, 2-pyrazinyl, 6-chloro-2-pyridyl, R1 = H, Cl, R2 = H, Me, Me2NCH2CH2, Ac, R3 = H, Me, OH), effective against Parkinson's disease in doses of 0.1-3 mg/kg daily and useful as antidepressants and inflammation inhibitors, were obtained by condensation of a heterocyclic nitrile with a diamine in the presence of S.

IT 24767-53-1P 24767-55-3P 24767-57-5P
 24783-44-6P 24783-45-7P 46864-37-3P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

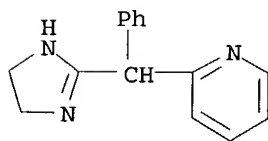
RN 24767-53-1 CAPLUS

CN Pyridine, 2-[(4,5-dihydro-1H-imidazol-1-yl)phenylmethyl]-,
 (2Z)-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

CRN 24783-44-6

CMF C15 H15 N3

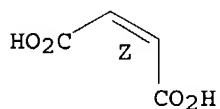


CM 2

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.



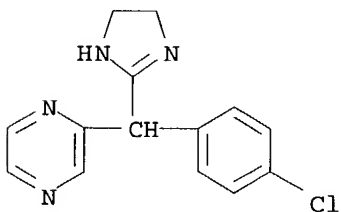
RN 24767-55-3 CAPLUS

CN Pyrazine, [(4-chlorophenyl) (4,5-dihydro-1H-imidazol-2-yl)methyl]-,
(2Z)-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

CRN 24783-45-7

CMF C14 H13 Cl N4

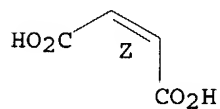


CM 2

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.



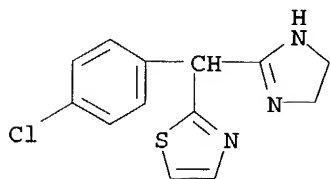
RN 24767-57-5 CAPLUS

CN Thiazole, 2-[(4-chlorophenyl) (4,5-dihydro-1H-imidazol-2-yl)methyl]-,
(2Z)-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

CRN 46864-37-3

CMF C13 H12 Cl N3 S

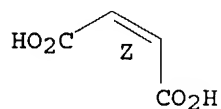


CM 2

CRN 110-16-7

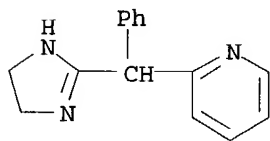
CMF C4 H4 O4

Double bond geometry as shown.



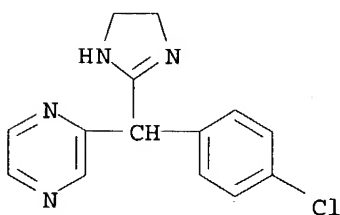
RN 24783-44-6 CAPLUS

CN Pyridine, 2-[(4,5-dihydro-1H-imidazol-2-yl)phenylmethyl] - (9CI) (CA INDEX NAME)



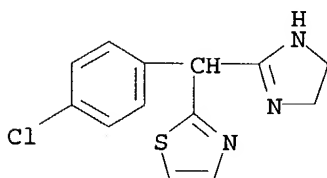
RN 24783-45-7 CAPLUS

CN Pyrazine, [(4-chlorophenyl) (4,5-dihydro-1H-imidazol-2-yl)methyl] - (9CI) (CA INDEX NAME)



RN 46864-37-3 CAPLUS

CN Thiazole, 2-[(4-chlorophenyl) (4,5-dihydro-1H-imidazol-2-yl)methyl] - (9CI) (CA INDEX NAME)



L6 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1973:418667 CAPLUS

DOCUMENT NUMBER: 79:18667

10689394

TITLE: Reaction of 1,2-(dialkylamino)ethanes with
 α -substituted aldehydes and ketones. Formation
of cyclic amins and tetrahydropyrazine

AUTHOR(S): Duhamel, Pierre; Duhamel, Lucette; Siret, Patrice

CORPORATE SOURCE: Lab. Chim. Org., Fac. Sci. Tech. Rouen,
Mont-Saint-Aignan, Fr.

SOURCE: Comptes Rendus des Seances de l'Academie des Sciences,
Serie C: Sciences Chimiques (1973),
276(15), 1319-22
CODEN: CHDCAQ; ISSN: 0567-6541

DOCUMENT TYPE: Journal

LANGUAGE: French

OTHER SOURCE(S): CASREACT 79:18667

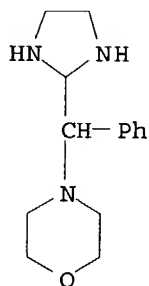
GI For diagram(s), see printed CA Issue.

AB Ten amins (I, R = Me, Et; R1 = Et, Me3C, Ph, etc.; R2 = Cl, Br, Et3N,
etc.) were prepared from R1R2CHCHO and RNHCH2CH2NHR. I heated at
180° gave tetrahydropyrazines II.

IT 41711-84-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 41711-84-6 CAPLUS

CN Morpholine, 4-(2-imidazolidinylphenylmethyl)- (9CI) (CA INDEX NAME)



L6 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1970:31790 CAPLUS

DOCUMENT NUMBER: 72:31790

TITLE: Cyclic amidines

INVENTOR(S): Walter, Lewis A.

PATENT ASSIGNEE(S): Scherico Ltd.

SOURCE: Ger. Offen., 71 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1905353	A	19690904	DE 1969-1905353	19690204 <--
DE 1905353	B2	19781221		
DE 1905353	C3	19790830		
CH 515254	A	19711115	CH 1969-515254	19690204 <--
AT 294819	B	19711210	AT 1970-4263	19690204 <--
GB 1259005	A	19720105	GB 1969-1259005	19690204 <--
AT 295520	B	19720110	AT 1970-4264	19690204 <--
CH 521363	A	19720415	CH 1969-521363	19690204 <--

06/24/2004

CH 521364	A	19720415	CH 1969-521364	19690204 <--
CH 521362	A	19720415	CH 1969-521362	19690204 <--
NO 126228	B	19730108	NO 1969-408	19690204 <--
CA 941829	A1	19740212	CA 1969-42002	19690204 <--
BE 727951	A	19690805	BE 1969-727951	19690205 <--
BR 6906150	A0	19730412	BR 1969-206150	19690205 <--
SE 372946	B	19750120	SE 1969-1538	19690205 <--
JP 51014514	B4	19760510	JP 1969-8194	19690205 <--
FR 2001655	A5	19690926	FR 1969-2936	19690207 <--
SU 365883	D	19730108	SU 1969-1315880	19690207 <--
SU 382284	D	19730522	SU 1969-1387182	19690207 <--
CS 154613	P	19740430	CS 1970-5800	19690207 <--
CS 154614	P	19740430	CS 1970-5801	19690207 <--

PRIORITY APPLN. INFO.:

US 1968-704263	19680209
SU 1969-1315880	19690207

GI For diagram(s), see printed CA Issue.

AB Cyclic amidines with antidepressive activity were prepared Thus, a mixture of α -(2-pyridyl)benzyl cyanide 19.4, ethylenediamine 6.6, and S 0.2 g was refluxed 5 hr under N to give I (R = R1 = H), m. 134-6°; maleate m. 132-5°. A mixture of 15 g finely divided NaNH₂, 10 g PhNHMe, and 400 ml Et₂O was refluxed 1 hr, treated with 14 g N-methyl-N-phenylcyanamide and 15 g p-chlorobenzyl cyanide and refluxed 1 hr to give p-chlorophenylmalononitrile (II). Anhydrous H₂S (8 g) was added at 20-5° to a solution of 20 g II and 20 g Et₃N in 200 ml HCONMe₂ and the mixture kept 5 hr to give α -(p-chlorophenyl)- α -cyanothioacetamide, which (20 g), 6.6 g ethylenediamine, and 500 ml C₆H₆ was refluxed 6 hr to give 2-(α -cyano-p-chlorobenzyl)imidazolin e (III). Et₃N (10 g) and 10 g anhydrous H₂S were successively added to a solution

of 20 g III in 200 ml HCONMe₂ and the mixture was kept overnight at 20-5°. The crude product was treated with an equivalent amount ClCH₂CHO in 100 ml EtOH and the mixture was kept 0.5 hr at 10° and refluxed 0.5 hr to give IV as the maleate, m. 145-7°. A mixture of 25 g Me α -(2-pyridyl)-p-chlorophenylacetate and ethylenediamine was refluxed 10 hr and the product dissolved in 500 ml xylene and refluxed under N to give I (R = H, R1 = Cl); maleate m. 156-8°. A solution of oily III, prepared as above, in 200 ml absolute EtOH was saturated with anhydrous HCl at 0°, kept 24 hr at 20-5°, evaporated in vacuo at <30°, dissolved in 100 ml anhydrous EtOH, added to 200 ml EtOH saturated with NH₃,

and

stirred 2 hr at 20-5°. The product was added in 100 ml EtOH to an aqueous alc. solution of malonaldehyde and the mixture refluxed 3 hr under N to give V, b. 180-3°. 2-[α -(2-Pyridyl)benzyl]imidazoline (16 g) was added to a stirred suspension of 8.5 g NaNH₂ in 300 ml liquid NH₃. After 10 min, the mixture was added in a cooled autoclave to 15.8 g 2-bromopyridine and stirred 6 hr at 50° to give I (R = R1 = H), m. 135-6°, 20 g of which was dissolved in 500 ml anhydrous C₆H₆. The solution was stirred 20 hr in dry air to give I (R = OH, R1 = H), m. 152-4°; HCl salt m. 206-8°.

IT 24767-53-1P 24767-55-3P 24767-57-5P

24783-44-6P 24783-45-7P 24784-28-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

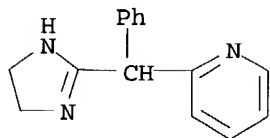
RN 24767-53-1 CAPLUS

CN Pyridine, 2-[(4,5-dihydro-1H-imidazol-1-yl)phenylmethyl]-,
(2Z)-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

CRN 24783-44-6

CMF C15 H15 N3

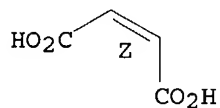


CM 2

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.



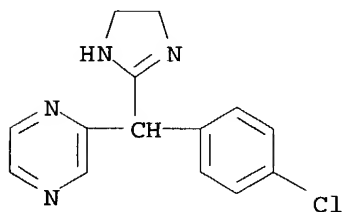
RN 24767-55-3 CAPLUS

CN Pyrazine, [(4-chlorophenyl)(4,5-dihydro-1H-imidazol-2-yl)methyl]-, (2Z)-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

CRN 24783-45-7

CMF C14 H13 Cl N4

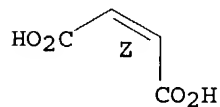


CM 2

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.



RN 24767-57-5 CAPLUS

CN Thiazole, 2-[(4-chlorophenyl)(4,5-dihydro-1H-imidazol-2-yl)methyl]-,

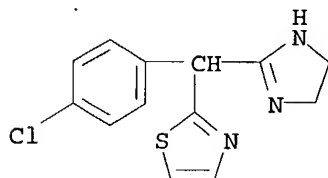
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(2Z)-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

CRN 46864-37-3

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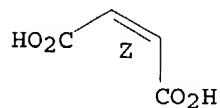


CM 2

CRN 110-16-7

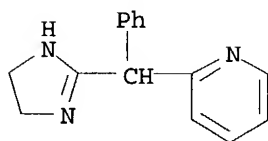
CMF C4 H4 O4

Double bond geometry as shown.



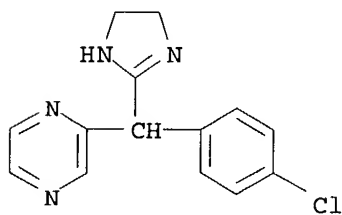
RN 24783-44-6 CAPLUS

CN Pyridine, 2-[(4,5-dihydro-1H-imidazol-2-yl)phenylmethyl]- (9CI) (CA INDEX NAME)



RN 24783-45-7 CAPLUS

CN Pyrazine, [(4-chlorophenyl)(4,5-dihydro-1H-imidazol-2-yl)methyl]- (9CI) (CA INDEX NAME)

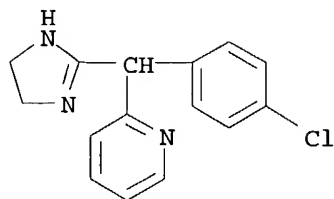


RN 24784-28-9 CAPLUS

CN Pyridine, 2-(p-chloro- α -2-imidazolin-2-ylbenzyl)- (8CI) (CA INDEX

10689394

NAME)



=> log y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

81.05

236.68

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

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-11.09

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NEWS	5	May 12 EXTEND option available in structure searching
NEWS	6	May 12 Polymer links for the POLYLINK command completed in REGISTRY
NEWS	7	May 17 FRFULL now available on STN
NEWS	8	May 27 New UPM (Update Code Maximum) field for more efficient patent SDIs in CPlus
NEWS	9	May 27 CPlus super roles and document types searchable in REGISTRY
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L4 7 L3

=> d l4 ibib abs hitstr tot

L4 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:610419 CAPLUS

DOCUMENT NUMBER: 139:149525

TITLE: Preparation of dihydroimidazolylmethylinroles and related compounds as α 1 A/L adrenergic receptor agonists for use against incontinence and other disorders

INVENTOR(S): Greenhouse, Robert; Jaime-Figueroa, Saul; Raptova, Lubica

PATENT ASSIGNEE(S): F. Hoffmann-La Roche A.-G., Switz.

SOURCE: PCT Int. Appl., 105 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003064387	A2	20030807	WO 2003-EP644	20030123
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

US 2003220319 A1 20031127 US 2003-355588 20030131

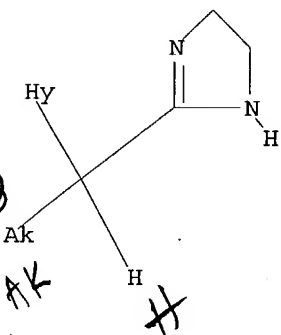
PRIORITY APPLN. INFO.: US 2002-353508P P 20020201

US 2002-418492P P 20021015

OTHER SOURCE(S): MARPAT 139:149525

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L1 STR



0 ANSWERS

11 ANSWERS

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STRUCTURE FILE UPDATES: 23 JUN 2004 HIGHEST RN 698346-19-9
DICTIONARY FILE UPDATES: 23 JUN 2004 HIGHEST RN 698346-19-9

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

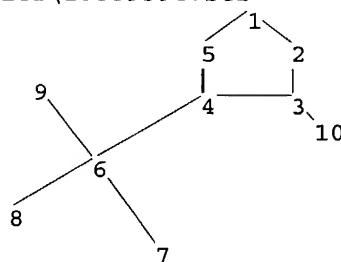
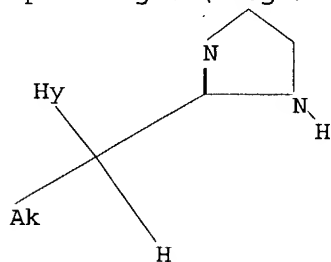
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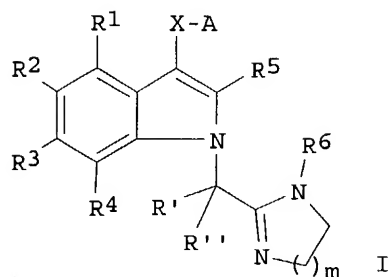
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chain nodes :
6 7 8 9 10
ring nodes :
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chain bonds :
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exact/norm bonds :
1-5 2-3 3-4 4-5 6-8 6-9
exact bonds :
1-2 3-10 4-6 6-7
isolated ring systems :
containing 1 :

GI



AB This invention relates to indoles (shown as I; variables defined below; e.g. 1-[(4,5-dihydro-1H-imidazol-2-yl)methyl]-3-methanesulfonyl-2-methyl-1H-indole) that are $\alpha 1$ receptor agonists, preferably $\alpha 1$ A/L receptor agonists; or individual isomers, racemic or nonracemic mixts. of isomers, or pharmaceutically acceptable salts or solvates thereof. The invention further relates to pharmaceutical compns. containing such compds., their preparation and their use as therapeutic agents, e.g. incontinence, sexual dysfunction, nasal congestion, sinusitis, otitis, depression, anxiety, dementia, senility, Alzheimer's, deficiencies in attentiveness and cognition, eating disorders, obesity, bulimia and anorexia. A number of pharmaceutical compns. are described. EC_{50} and intrinsic agonist activity values for 9 examples of I are tabulated. Nineteen example preps. of I are included. For example, 1-[(4,5-dihydro-1H-imidazol-2-yl)methyl]-3-methanesulfonyl-2-methyl-1H-indole was prepared in 5 steps: (1) to prepare (2-methyl-1H-indol-3-yl)dimethylsulfonium chloride N-chlorosuccinimide (29.35 mmol) was suspended in dichloroethane (40 mL) under a N_2 atmosphere and cooled to -10° using an ice-salt-acetone bath. Di-Me sulfide (3 mL) was slowly added with stirring over a period of .apprx.5 min. The mixture was stirred at this temperature for 10 min beyond the addition, at which time the ice-salt-acetone bath was replaced by a dry-ice acetone bath and the temperature was lowered to -50° . To this solution was added 2-methylindole (29.35 mmol) dissolved in dichloroethane (40 mL) slowly with stirring. The reaction mixture was stirred while allowing the temperature to reach 20° over about an hour. (2) To prepare 2-methyl-3-methylthio-1H-indole (2-methyl-1H-indol-3-yl)dimethylsulfonium chloride (2 g) was placed under vacuum in a flask connected to a tube and distillation bulb receiver and gently warmed with a heat gun until bubbling of gas commenced. The sample was heated intermittently until the bubbling ceased and no more product distilled over. (3) To prepare (2-methyl-3-methylsulfanylindol-1-yl)acetonitrile (1.05 g of oil) 2-methyl-3-methylthio-1H-indole (6.21 mmol) was dissolved in toluene (25 mL). To this solution was added bromoacetonitrile (7.42 mmol) and Bu₄NBr (1 g). With stirring, a solution of 4 g NaOH dissolved in 4 mL H₂O was added. After 30 min another few drops of bromoacetonitrile were added to complete the reaction. After 30 min more, the stirring was stopped and the reaction was allowed to stand overnight at room temperature (4) To prepare [3-(methanesulfonyl)-2-methylindol-1-yl]acetonitrile (1.01 g) (2-methyl-3-methylsulfanylindol-1-yl)acetonitrile (4.86 mmol) was dissolved in CH₂Cl₂ (50 mL) and cooled in an ice bath to 0° . At this temperature m-chloroperoxybenzoic acid (.apprx.77% , 2.4 g) was added in portions. The ice bath was removed and the reaction mixture was allowed to reach room temperature while stirring for 1 h. (5) To prepare

1-[(4,5-dihydro-1H-imidazol-2-yl)methyl]-3-methanesulfonyl-2-methyl-1H-indole (520 mg) N-[3-(methanesulfonyl)-2-methylindol-1-yl]acetonitrile (2.014 mmol) was mixed with ethylenediamine (2 mL) and 2 drops of CS₂ was added carefully. The flask was flushed with N₂ and placed in an oil bath preheated to 150°. The bath was maintained at 140-150° for a total of 75 min. For I: X is -S(O)_n- or -C(O)-; A is (C1-6)-alkyl, aryl, heteroaryl, hydroxy(C1-6)-alkyl, or -(CH₂)_p-NRaRb; R₁, R₂, R₃, and R₄ each independently = H, halogen, halogen(C1-6)-alkyl, (C1-6)-alkyl, hydroxy, (C1-6)-alkoxy, (C1-6)-alkylthio, (C1-6)-alkylsulfinyl, (C1-6)-alkylsulfonyl, (C1-6)-alkylsulfonylamino, (C1-6)-alkylaminosulfonyl, cyano, nitro, -NRaRb, Ph, benzyl and benzyloxy, wherein said Ph rings are (un)substituted with (C1-6)-alkyl, halogen, cyano, nitro, halogen(C1-6)-alkyl, or (C1-6)-alkoxy. R₅ is H, (C1-6)-alkyl, (C1-6)-alkoxy, (C1-6)-alkoxyalkyl, (C1-6)-alkylthio, (C1-6)-alkylsulfinyl, (C1-6)-alkylsulfonyl, hydroxy(C1-6)-alkyl, hydroxy(C1-6)-alkylamino, halogen, halogen(C1-6)-alkyl, cyano, -NRaRb, -NRC-(C1-6)-alkylene-NRaRb, or R₅ and A together form a C₂-C₃ alkylene radical; R₆ is H or (C1-6)-alkyl; R' and R'' each independently is H or (C1-6)-alkyl; Ra, Rb, and Rc each independently = H, (C1-6)-alkyl, hydroxy(C1-6)-alkyl, (C₂-6)-alkenyl, (C₃-6)-cycloalkyl(C1-6)-alkyl and arylsulfonyl, or Ra and Rb together with the N they are attached may also form a 5- to 7-membered nonarom. heterocyclic ring optionally incorporating an addnl. ring heteroatom = N, O, or S; m is 1 or 2; n = 0-2 with the proviso that when n is 0, R₅ is not -NRaRb; and p = 0-2;.

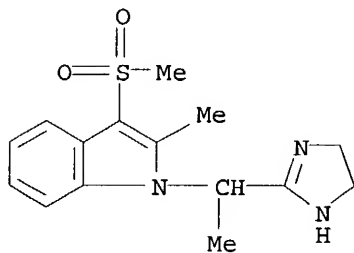
IT 573715-87-4P, 1-[1-(4,5-Dihydro-1H-imidazol-2-yl)ethyl]-3-methanesulfonyl-2-methyl-1H-indole 573715-88-5P, 1-[1-(4,5-Dihydro-1H-imidazol-2-yl)ethyl]-3-methanesulfonyl-1H-indole 573715-89-6P, 5-Chloro-1-[1-(4,5-dihydro-1H-imidazol-2-yl)ethyl]-3-methanesulfonyl-2-methyl-1H-indole

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of dihydroimidazolylmethylindoles and related compds. as α 1 A/L adrenergic receptor agonists for use against incontinence and other disorders)

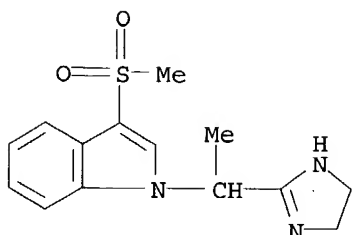
RN 573715-87-4 CAPLUS

CN 1H-Indole, 1-[1-(4,5-dihydro-1H-imidazol-2-yl)ethyl]-2-methyl-3-(methylsulfonyl)- (9CI) (CA INDEX NAME)



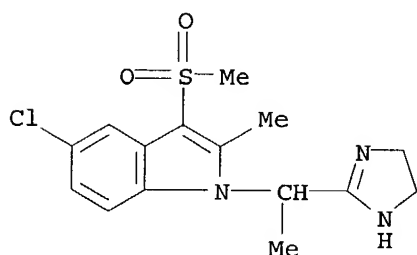
RN 573715-88-5 CAPLUS

CN 1H-Indole, 1-[1-(4,5-dihydro-1H-imidazol-2-yl)ethyl]-3-(methylsulfonyl)- (9CI) (CA INDEX NAME)



RN 573715-89-6 CAPLUS

CN 1H-Indole, 5-chloro-1-[1-(4,5-dihydro-1H-imidazol-2-yl)ethyl]-2-methyl-3-(methylsulfonyl)- (9CI) (CA INDEX NAME)



L4 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:269354 CAPLUS

DOCUMENT NUMBER: 139:143704

TITLE: Imidazoline NNC77-0074 stimulates Ca²⁺-evoked exocytosis in INS-1E cells by a phospholipase A₂-dependent mechanism

AUTHOR(S): Olsen, Hervor L.; Norby, Peder L.; Hoy, Marianne; Spee, Pieter; Thams, Peter; Capito, Kirsten; Petersen, Jacob S.; Gromada, Jesper

CORPORATE SOURCE: Novo Nordisk A/S, Bagsvaerd, DK-2880, Den.

SOURCE: Biochemical and Biophysical Research Communications (2003), 303(4), 1148-1151
CODEN: BBRC99; ISSN: 0006-291X

PUBLISHER: Elsevier Science

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We have previously demonstrated that the novel imidazoline compound (+)-2-(2-(4,5-dihydro-1H-imidazol-2-yl)-thiopene-2-yl-ethyl)-pyridine (NNC77-0074) increases insulin secretion from pancreatic β -cells by stimulation of Ca²⁺-dependent exocytosis. Using capacitance measurements, we now show that NNC77-0074 stimulates exocytosis in clonal INS-1E cells. NNC77-0074-stimulated exocytosis was antagonized by the cytoplasmic phospholipase A₂ (cPLA₂) inhibitors ACA and AACOCF₃ and in cells treated with antisense oligonucleotide against cPLA₂ α . NNC77-0074-evoked insulin secretion was likewise inhibited by ACA, AACOCF₃, and cPLA₂ α antisense oligonucleotide treatment. In pancreatic islets NNC77-0074 stimulated PLA₂ activity. We propose that cPLA₂ α plays an important role in the regulation of NNC77-0074-evoked exocytosis in insulin secreting β -cells.

IT 573698-57-4, NNC 77-0074

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU

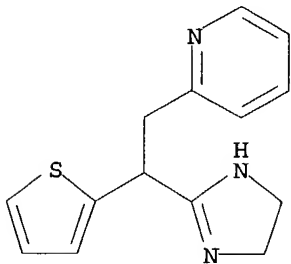
(Therapeutic use); BIOL (Biological study); USES (Uses)

(imidazoline NNC77-0074 stimulates Ca²⁺-evoked exocytosis in INS-1E cells by a phospholipase A2-dependent mechanism)

RN 573698-57-4 CAPLUS

CN Pyridine, 2-[2-(4,5-dihydro-1H-imidazol-2-yl)-2-(2-thienyl)ethyl]-, (+)-(9CI) (CA INDEX NAME)

Rotation (+).



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:249813 CAPLUS

DOCUMENT NUMBER: 139:159749

TITLE: Imidazoline NNC77-0074 stimulates insulin secretion and inhibits glucagon release by control of Ca²⁺-dependent exocytosis in pancreatic α - and β -cells

AUTHOR(S): Hoy, Marianne; Olsen, Hervor L.; Andersen, Henrik S.; Bokvist, Krister; Buschard, Karsten; Hansen, John; Jacobsen, Palle; Petersen, Jacob S.; Rorsman, Patrik; Gromada, Jesper

CORPORATE SOURCE: Novo Nordisk A/S, Bagsvaerd, DK-2880, Den.

SOURCE: European Journal of Pharmacology (2003), 466(1-2), 213-221

CODEN: EJPHAZ; ISSN: 0014-2999

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We have investigated the effects of the novel imidazoline compound (+)-2-(2-(4,5-dihydro-1H-imidazol-2-yl)-thiopene-2-yl-ethyl)-pyridine (NNC77-0074) on stimulus-secretion coupling in isolated pancreatic α - and β -cells. NNC77-0074 stimulated glucose-dependent insulin secretion in intact mouse pancreatic islets. No effect was observed at ≤ 2.5 mM glucose and maximal stimulation occurred at 10-15 mM glucose. NNC77-0074 produced a concentration-dependent stimulation of insulin secretion. Half-maximal (EC₅₀) stimulation was observed at 24 μ M and at maximally stimulatory concns. insulin release was doubled. The stimulatory action of NNC77-0074 on insulin secretion was not associated with membrane depolarization or a change in the activity of ATP-sensitive K⁺ channels. Using capacitance measurements, we found that NNC77-0074 stimulated depolarization-induced exocytosis 2.6-fold without affecting the whole-cell Ca²⁺ current when applied via the extracellular medium. The concentration dependence of the stimulatory action was determined by intracellular application of NNC77-0074 through the recording pipet. NNC77-0074 stimulated exocytosis half-maximal at 44 nM and at maximally stimulatory

concns. the rate of exocytosis was increased twofold. NNC77-0074 stimulated depolarized-induced insulin secretion from islets exposed to diazoxide and high external KCl (EC50=0.45 μ M). The stimulatory action of NNC77-0074 was dependent on protein kinase C activity. NNC77-0074 potentially inhibited glucagon secretion from rat islets (EC50=11 nM). This was not associated with a change in spontaneous elec. activity and ATP-sensitive K⁺ channel activity but resulted from a reduction of the rate of Ca²⁺-dependent exocytosis in single rat α -cells (EC50=9 nM). Inhibition of exocytosis by NNC77-0074 was pertussis toxin-sensitive and mediated by activation of the protein phosphatase calcineurin. In rat somatotrophs, PC12 cells and mouse cortical neurons NNC77-0074 did not stimulate Ca²⁺-evoked exocytosis, whereas the other imidazoline compds. phentolamine and efaroxan produced 2.5-fold stimulation of exocytosis. Our data suggest that the imidazoline compound NNC77-0074 constitutes a novel class of antidiabetic compds. that stimulates glucose-dependent insulin release while inhibiting glucagon secretion. These actions are exclusively exerted by modulation of exocytosis of the insulin- and glucagon-containing granules.

IT 573698-57-4, NNC 77-0074

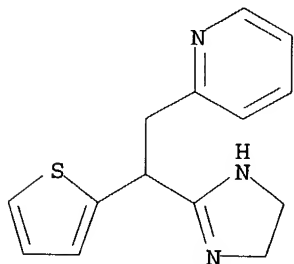
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(imidazoline NNC77-0074 stimulates insulin secretion and inhibits glucagon release by control of Ca²⁺-dependent exocytosis in pancreatic α - and β -cells)

RN 573698-57-4 CAPLUS

CN Pyridine, 2-[2-(4,5-dihydro-1H-imidazol-2-yl)-2-(2-thienyl)ethyl]-, (+)-(9CI) (CA INDEX NAME)

Rotation (+).



REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:661837 CAPLUS

DOCUMENT NUMBER: 132:35648

TITLE: Structure and properties of ethyl (2-benzimidazolyl)cyanoacetimidate

AUTHOR(S): Yamaguchi, Yoshimi; Okamoto, Yoshihisa; Harada, Kazuho

CORPORATE SOURCE: Center for Natural Sciences, Kitasato University, Sagamihara, 228-8555, Japan

SOURCE: Journal of Heterocyclic Chemistry (1999), 36(4), 841-847

CODEN: JHTCAD; ISSN: 0022-152X

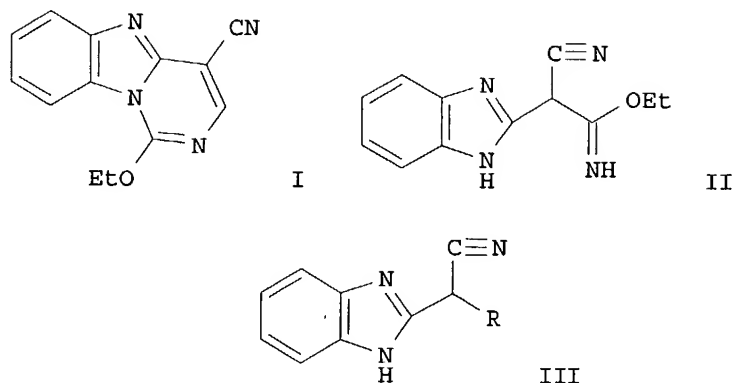
PUBLISHER: HeteroCorporation

DOCUMENT TYPE: Journal

LANGUAGE: English

GI

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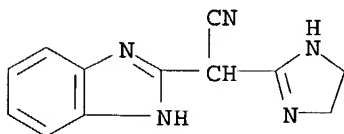
AB The structure of the hydrolysis product of the cyanopyrimidobenzimidazole I was revised to be the (benzimidazolyl)cyanoacetimidate II based on crystal structure anal. II reacted with AcOH to give the cyanoacetamide III (R = CONH₂). Reaction of II with excess amines R₁NH₂ (R₁ = Bu, benzyl) gave amidines III [R = C(:NH)NHR₁, C(:NR₁)NHR₁].

IT 252350-76-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
(mol. structure and reactivity of benzimidazolylcyanoacetimidate, the cyano(ethoxy)pyrimidobenzimidazole hydrolysis product)

RN 252350-76-8 CAPLUS

CN 1H-Benzimidazole-2-acetonitrile, α -(4,5-dihydro-1H-imidazol-2-yl)-
(9CI) (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:706207 CAPLUS

DOCUMENT NUMBER: 129:316226

TITLE: Imidazole and imidazoline derivatives as α 2 adrenergic agonists

INVENTOR(S): Wong, Wai C.; Jeon, Yoon T.; Dhar, T. G. Murali; Gluchowski, Charles

PATENT ASSIGNEE(S): Synaptic Pharmaceutical Corp., USA

SOURCE: PCT Int. Appl., 101 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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06/24/2004

WO 9846572 A1 19981022 WO 1998-US7453 19980410
 W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
 DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG,
 KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
 NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
 UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
 FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
 CM, GA, GN, ML, MR, NE, SN, TD, TG

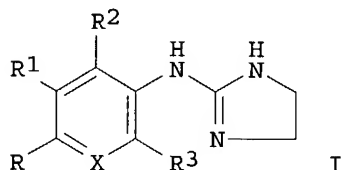
US 5866579 A 19990202 US 1997-834658 19970411
 AU 9869705 A1 19981111 AU 1998-69705 19980410
 EP 975602 A1 20000202 EP 1998-915550 19980410
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO

US 6093727 A 20000725 US 1998-175253 19981020
 US 6294566 B1 20010925 US 1999-398861 19990920
 US 2002019390 A1 20020214 US 2001-933106 20010820

PRIORITY APPLN. INFO.:

US 1997-834658 A 19970411
 WO 1998-US7453 W 19980410
 US 1998-175253 A1 19981020
 US 1999-398861 A1 19990920

OTHER SOURCE(S): MARPAT 129:316226
 GI



AB Title compds. I [X = (un)substituted CH, N, N(O); RR1 = atoms required to complete an (un)substituted 5- or 6-membered carbocycle or heterocycle; R2, R3 = H, F, Cl, Br, I, NO2, CN, alkyl, fluoroalkyl, alkoxy, OH, hydroxyalkyl, acyl, (un)esterified CO2H, carbamoyl, Ph, CH2Ph] were prepared for use as α_2 adrenergic agonists. Thus, 5-aminoindan was treated with 2-imidazolinesulfonic acid to give 73% 2-(5-indanylamino)-2-imidazoline which had a pKi for human α_2 adrenoceptor binding of 8.94, cf medetomidine 8.62.

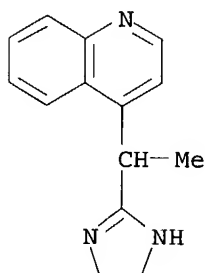
IT 214700-07-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of imidazoline derivs. as α_2 adrenergic agonists)

RN 214700-07-9 CAPLUS

CN Quinoline, 4-[1-(4,5-dihydro-1H-imidazol-2-yl)ethyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:934501 CAPLUS

DOCUMENT NUMBER: 124:45429

TITLE: The novel antiepileptic drug levetiracetam (ucb L059) appears to act via a specific binding site in CNS membranes

AUTHOR(S): Noyer, Michel; Gillard, Michel; Matagne, Alain; Henichart, Jean-Pierre; Wuelfert, Ernst

CORPORATE SOURCE: UCB Pharmaceutical Sector, Chemin du Foriest, Braine-l'Alleud, 1420, Belg.

SOURCE: European Journal of Pharmacology (1995), 286(2), 137-46

CODEN: EJPHAZ; ISSN: 0014-2999

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Levetiracetam ((S)- α -ethyl-2-oxo-pyrrolidine acetamide, ucb L059) is a novel potential antiepileptic agent presently in clin. development with unknown mechanism of action. The finding that its anticonvulsant activity is highly stereoselective (Gower et al., 1992) led the authors' to investigate the presence of specific binding sites for [3H]levetiracetam in rat central nervous system (CNS). Binding assays, performed on crude membranes, revealed the existence of a reversible, saturable and stereoselective specific binding site. Results obtained in hippocampal membranes suggest that [3H]levetiracetam labels a single class of binding sites ($nH = 0.92$) with modest affinity ($K_d = 780$ nM) and with a high binding capacity ($B_{max} = 9.1$ pmol/mg protein). Similar K_d and B_{max} values were obtained in other brain regions (cortex, cerebellum and striatum). ucb L060, the (R) enantiomer of levetiracetam, displayed about 1000 times less affinity for these sites. The binding of [3H]levetiracetam is confined to the synaptic plasma membranes in the central nervous system since no specific binding was observed in a range of peripheral tissues including heart, kidneys, spleen, pancreas, adrenals, lungs and liver. The commonly used antiepileptic drugs carbamazepine, phenytoin, valproate, phenobarbital and clonazepam, as well as the convulsant agent t-butylbicyclophosphorothionate (TBPS), picrotoxin and bicuculline did not displace [3H]levetiracetam binding. However, ethosuximide ($pK_i = 3.5$), pentobarbital ($pK_i = 3.8$), pentylenetetrazole ($pK_i = 4.1$) and bemegride ($pK_i = 5.0$) competed with [3H]levetiracetam with pK_i values comparable to active drug concns. observed in vivo. Structurally related compds., including piracetam and aniracetam, also displaced [3H]levetiracetam binding. (S) Stereoisomer homologs of levetiracetam demonstrated a rank order of affinity for [3H]levetiracetam binding in correlation with their anticonvulsant activity in the audiogenic mouse test ($r^2 = 0.84$). These

06/24/2004

results support a possible role of this binding site in the anticonvulsant activity of levetiracetam and substantiate the singular pharmacol. profile of this compound. This site remains however to be further characterized.

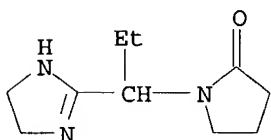
IT 172171-76-5

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(the novel antiepileptic drug levetiracetam (ucb L059) appears to act via a specific binding site in CNS membranes)

RN 172171-76-5 CAPLUS

CN 2-Pyrrolidinone, 1-[1-(4,5-dihydro-1H-imidazol-2-yl)propyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1970:12784 CAPLUS

DOCUMENT NUMBER: 72:12784

TITLE: Heterocyclic derivatives useful in regulating heart activity

INVENTOR(S): Zivkovic, Dusan

PATENT ASSIGNEE(S): UCB (Union Chimique-Chemische Bedrijven), S. A.

SOURCE: Ger. Offen., 30 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

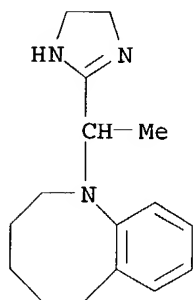
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1905525	A	19690828	DE 1969-1905525	19690205
GB 1191963	A	19700513	GB 1968-6049	19680207
NL 6901745	A	19690811	NL 1969-1745	19690204
FR 2001439	A5	19690926	FR 1969-2378	19690204
US 3661927	A	19720509	US 1969-796920	19690205
SE 371826	B	19741202	SE 1969-1527	19690205
BE 727977	A	19690806	BE 1969-727977	19690206
ES 363344	A1	19701216	ES 1969-363344	19690206
BR 6906182	A0	19730109	BR 1969-206182	19690206

PRIORITY APPLN. INFO.: GB 1968-6049 19680207

AB CH₂, 1, H, H, 95-6°, 252-3°; 3, CH₂, 9-Cl, CH₂, 2, H, H, 93-5°, 247-8°; 3, CH₂, 9-F, CH₂, 1, H, H, 124-6°, 226-8°; 3, CH₂, H, CHMe, 1, H, H, 111-12°, 211-12°; 3, S, H, CH₂, 1, H, H, 85-6°, 205°; 3, S, H, CH₂, 1, H, Me, 163-4°; 3, S, 8-Cl, CH₂, 1, H, H, 130-2°, 214-15°; 3, S, 8-Cl, CH₂, 1, H, Me, 155-6°; 3, S, 8-Me, CH₂, 1, H, H, 95-7°, 213-15°; 3, S, 8-Cl, (CH₂)₃, 1, H, H, 92-3°, 164-5°; 3, S, 8-Cl, CHMe, 1, H, H, 99-101°, 139-41°; 3, CH₂, H, CH₂, 1, Me, H, 82-3°, 205-7°; 3, S, 8-Cl, CH₂, 1, iso-Pr, H, 232-3°; 3, S, H, CH₂, 1, Et, H, 146-7°; 3, S, 8-Cl, CH₂, 1, Et, H, 81-2°, 189-90°; 3, S, H, (CH₂)₃, 1, H, H, 140-1°; 3, S, 8-Cl, CH₂CHMeCH₂, 1, H, H, 228-30°; 3, S, 3,8-Me(Cl), CH₂, 1, H, H, 178-9°; 3, CH₂, 9-Me, CH₂, 1, H,

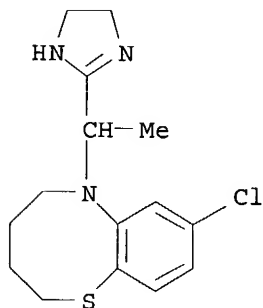
Me, 130-4°/0.001, 227-8°; 3, CH₂, 9-Cl, CH₂, 1, H, Me, 160-70°/0.005, 230-1°; 3, CH₂, H, CH₂CHMeCH₂, 1, H, H, 150-55°/0.001, 204-5°; 3, CH₂, H, CH₂, 1, iso-Pr, H, , 191-2°. I possess cardiotonic properties. Pharmacol. data are given.

IT **24484-23-9P 24484-36-4P 24484-37-5P**,
 2H-1,6-Benzothiazocine, 8-chloro-3,4,5,6-tetrahydro-6-[1-(2-imidazolin-2-yl)ethyl]-, monohydrochloride **24484-56-8P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 24484-23-9 CAPLUS
 CN 1-Benzazocine, 1,2,3,4,5,6-hexahydro-1-[1-(2-imidazolin-2-yl)ethyl]-, monohydrochloride (8CI) (CA INDEX NAME)



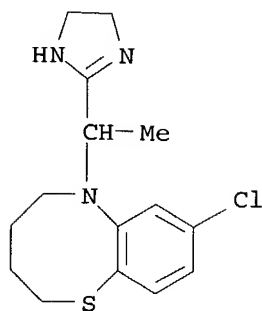
● HCl

RN 24484-36-4 CAPLUS
 CN 2H-1,6-Benzothiazocine, 8-chloro-3,4,5,6-tetrahydro-6-[1-(2-imidazolin-2-yl)ethyl]- (8CI) (CA INDEX NAME)



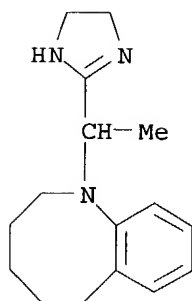
RN 24484-37-5 CAPLUS
 CN 2H-1,6-Benzothiazocine, 8-chloro-3,4,5,6-tetrahydro-6-[1-(2-imidazolin-2-yl)ethyl]-, monohydrochloride (8CI) (CA INDEX NAME)

06/24/2004



● HCl

RN 24484-56-8 CAPLUS

CN 1-Benzazocine, 1,2,3,4,5,6-hexahydro-1-[1-(2-imidazolin-2-yl)ethyl] - (8CI)
(CA INDEX NAME)

=> FIL REGISTRY

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
37.24	192.87

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-4.85	-4.85

CA SUBSCRIBER PRICE

FILE 'REGISTRY' ENTERED AT 08:23:50 ON 24 JUN 2004

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 23 JUN 2004 HIGHEST RN 698346-19-9

DICTIONARY FILE UPDATES: 23 JUN 2004 HIGHEST RN 698346-19-9

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

10689394

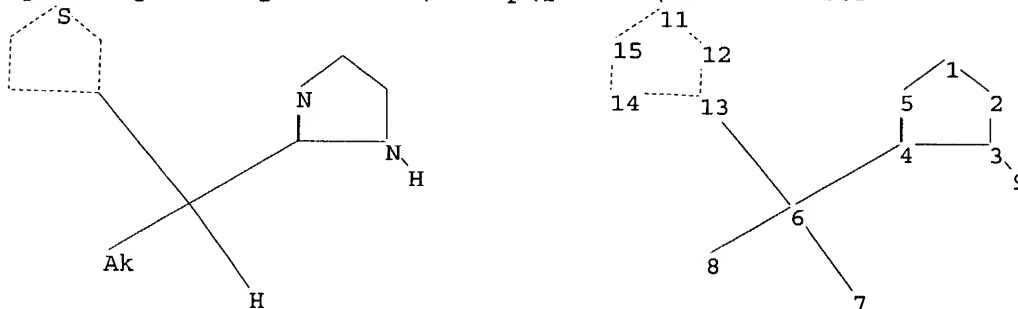
Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10689394a.str



chain nodes :

6 7 8 9

ring nodes :

1 2 3 4 5 11 12 13 14 15

chain bonds :

3-9 4-6 6-7 6-8 6-13

ring bonds :

1-2 1-5 2-3 3-4 4-5 11-12 11-15 12-13 13-14 14-15

exact/norm bonds :

1-5 2-3 3-4 4-5 6-8 11-12 11-15 12-13 13-14 14-15

exact bonds :

1-2 3-9 4-6 6-7 6-13

isolated ring systems :

containing 1 : 11 :

Match level :

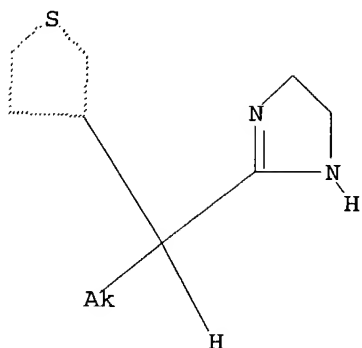
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:CLASS 9:CLASS
 11:CLASS 12:Atom 13:Atom 14:Atom 15:Atom

L5 STRUCTURE UPLOADED

=> d 15

L5 HAS NO ANSWERS

L5 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 15

SAMPLE SEARCH INITIATED 08:24:15 FILE 'REGISTRY'
 SAMPLE SCREEN SEARCH COMPLETED - 10 TO ITERATE

100.0% PROCESSED 10 ITERATIONS 0 ANSWERS
 SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
 BATCH **COMPLETE**
 PROJECTED ITERATIONS: 11 TO 389
 PROJECTED ANSWERS: 0 TO 0

L6 0 SEA SSS SAM L5

=> s 15 sss full

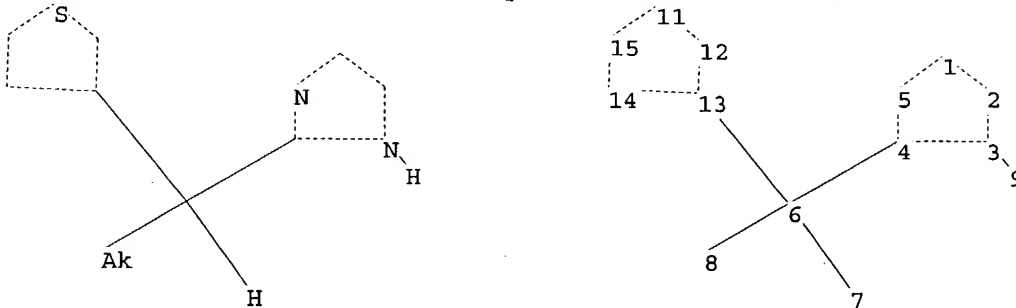
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 FULL SCREEN SEARCH COMPLETED - 196 TO ITERATE

100.0% PROCESSED 196 ITERATIONS 0 ANSWERS
 SEARCH TIME: 00.00.01

L7 0 SEA SSS FUL L5

=>

Uploading C:\Program Files\Stnexp\Queries\10689394b.str



chain nodes :
 6 7 8 9

10689394

```

ring nodes :
1  2  3  4  5  11 12 13 14 15
chain bonds :
3-9 4-6 6-7 6-8 6-13
ring bonds :
1-2 1-5 2-3 3-4 4-5 11-12 11-15 12-13 13-14 14-15
exact/norm bonds :
1-2 1-5 2-3 3-4 4-5 6-8 11-12 11-15 12-13 13-14 14-15
exact bonds :
3-9 4-6 6-7 6-13
isolated ring systems :
containing 1 : 11 :

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Match level :

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11:CLASS 12:Atom 13:Atom 14:Atom 15:Atom

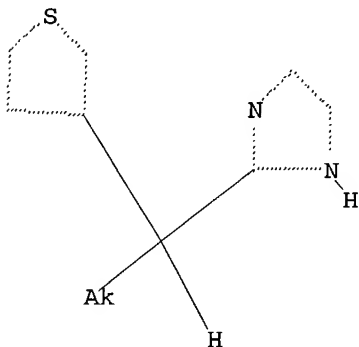
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L8 STRUCTURE UPLOADED

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L8 HAS NO ANSWERS

L8 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l8

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SAMPLE SCREEN SEARCH COMPLETED - 10 TO ITERATE

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100.0% PROCESSED      10 ITERATIONS
SEARCH TIME: 00.00.01

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0 ANSWERS

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FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:   11 TO    389
PROJECTED ANSWERS:      0 TO     0

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L9 0 SEA SSS SAM L8

10689394

=> s l8 sss full

FULL SEARCH INITIATED 08:26:01 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 196 TO ITERATE

100.0% PROCESSED 196 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

L10 0 SEA SSS FUL L8

=> d his

(FILE 'HOME' ENTERED AT 08:17:28 ON 24 JUN 2004)

FILE 'REGISTRY' ENTERED AT 08:17:48 ON 24 JUN 2004

L1 STRUCTURE UPLOADED

L2 0 S L1

L3 11 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 08:18:21 ON 24 JUN 2004

L4 7 S L3

FILE 'REGISTRY' ENTERED AT 08:23:50 ON 24 JUN 2004

L5 STRUCTURE UPLOADED

L6 0 S L5

L7 0 S L5 SSS FULL

L8 STRUCTURE UPLOADED

L9 0 S L8

L10 0 S L8 SSS FULL

=> s l4 and thu

8 THU

13 THUS

21 THU

(THU OR THUS)

L11 0 L4 AND THU

=> s l4 and py<=2002

'2002' NOT A VALID FIELD CODE

0 PY<=2002

L12 0 L4 AND PY<=2002

=> s l4 and thienyl

263883 THIENYL

L13 1 L4 AND THIENYL

=> d l13 ibib abs hitstr tot

'IBIB' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

'ABS' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

'HITSTR' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

The following are valid formats:

Substance information can be displayed by requesting individual fields or predefined formats. The predefined substance formats are: (RN = CAS Registry Number)

REG - RN

SAM - Index Name, MF, and structure - no RN

FIDE - All substance data, except sequence data

IDE - FIDE, but only 50 names

SQIDE - IDE, plus sequence data
SQIDE3 - Same as SQIDE, but 3-letter amino acid codes are used
SQD - Protein sequence data, includes RN
SQD3 - Same as SQD, but 3-letter amino acid codes are used
SQN - Protein sequence name information, includes RN

CALC - Table of calculated properties
EPROP - Table of experimental properties
PROP - EPROP and CALC

Any CA File format may be combined with any substance format to obtain CA references citing the substance. The substance formats must be cited first. The CA File predefined formats are:

ABS -- Abstract
APPS -- Application and Priority Information
BIB -- CA Accession Number, plus Bibliographic Data
CAN -- CA Accession Number
CBIB -- CA Accession Number, plus Bibliographic Data (compressed)
IND -- Index Data
IPC -- International Patent Classification
PATS -- PI, SO
STD -- BIB, IPC, and NCL

IABS -- ABS, indented, with text labels
IBIB -- BIB, indented, with text labels
ISTD -- STD format, indented

OBIB ----- AN, plus Bibliographic Data (original)
OIBIB ----- OBIB, indented with text labels

SBIB ----- BIB, no citations
SIBIB ----- IBIB, no citations

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when it is available.

The MAX format is the same as ALL.

The IALL format is the same as ALL with BIB ABS and IND indented, with text labels.

For additional information, please consult the following help messages:

HELP DFIELDS -- To see a complete list of individual display fields.
HELP FORMATS -- To see detailed descriptions of the predefined formats.
ENTER DISPLAY FORMAT (IDE):end

=> d his

(FILE 'HOME' ENTERED AT 08:17:28 ON 24 JUN 2004)

FILE 'REGISTRY' ENTERED AT 08:17:48 ON 24 JUN 2004

L1 STRUCTURE UPLOADED
L2 0 S L1
L3 11 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 08:18:21 ON 24 JUN 2004

L4 7 S L3

FILE 'REGISTRY' ENTERED AT 08:23:50 ON 24 JUN 2004

L5 STRUCTURE UPLOADED
L6 0 S L5
L7 0 S L5 SSS FULL
L8 STRUCTURE UPLOADED
L9 0 S L8
L10 0 S L8 SSS FULL
L11 0 S L4 AND THU
L12 0 S L4 AND PY<=2002
L13 1 S L4 AND THIENYL

=> FIL CAPLUS

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
322.22	515.09

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
0.00	-4.85

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FILE 'CAPLUS' ENTERED AT 08:28:24 ON 24 JUN 2004

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FILE COVERS 1907 - 24 Jun 2004 VOL 140 ISS 26

FILE LAST UPDATED: 23 Jun 2004 (20040623/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l13

L14 2 L13

=> d l14 ibib abs hitstr tot

L14 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:269354 CAPLUS

DOCUMENT NUMBER: 139:143704

TITLE: Imidazoline NNC77-0074 stimulates Ca2+-evoked exocytosis in INS-1E cells by a phospholipase A2-dependent mechanism

AUTHOR(S): Olsen, Hervor L.; Norby, Peder L.; Hoy, Marianne; Spee, Pieter; Thams, Peter; Capito, Kirsten; Petersen, Jacob S.; Gromada, Jesper

CORPORATE SOURCE: Novo Nordisk A/S, Bagsvaerd, DK-2880, Den.

SOURCE: Biochemical and Biophysical Research Communications (2003) 303(4), 1148-1151
CODEN: BBRCA9; ISSN: 0006-291X

PUBLISHER: Elsevier Science
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We have previously demonstrated that the novel imidazoline compound (+)-2-(2-(4,5-dihydro-1H-imidazol-2-yl)-thiopene-2-yl-ethyl)-pyridine (NNC77-0074) increases insulin secretion from pancreatic β -cells by stimulation of Ca^{2+} -dependent exocytosis. Using capacitance measurements, we now show that NNC77-0074 stimulates exocytosis in clonal INS-1E cells. NNC77-0074-stimulated exocytosis was antagonized by the cytoplasmic phospholipase A2 (cPLA2) inhibitors ACA and AACOCF3 and in cells treated with antisense oligonucleotide against cPLA2 α . NNC77-0074-evoked insulin secretion was likewise inhibited by ACA, AACOCF3, and cPLA2 α antisense oligonucleotide treatment. In pancreatic islets NNC77-0074 stimulated PLA2 activity. We propose that cPLA2 α plays an important role in the regulation of NNC77-0074-evoked exocytosis in insulin secreting β -cells.

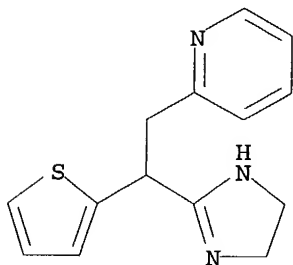
IT 573698-57-4, NNC 77-0074

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(imidazoline NNC77-0074 stimulates Ca^{2+} -evoked exocytosis in INS-1E cells by a phospholipase A2-dependent mechanism)

RN 573698-57-4 CAPLUS

CN Pyridine, 2-[2-(4,5-dihydro-1H-imidazol-2-yl)-2-(2-thienyl)ethyl]-, (+)-(9CI) (CA INDEX NAME)

Rotation (+).



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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TITLE: Imidazoline NNC77-0074 stimulates insulin secretion and inhibits glucagon release by control of Ca^{2+} -dependent exocytosis in pancreatic α - and β -cells

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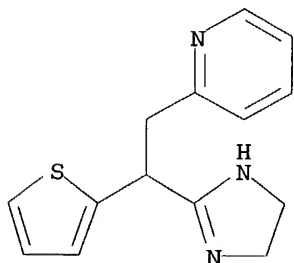
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- AB We have investigated the effects of the novel imidazoline compound (+)-2-(2-(4,5-dihydro-1H-imidazol-2-yl)-thiopene-2-yl-ethyl)-pyridine (NNC77-0074) on stimulus-secretion coupling in isolated pancreatic α - and β -cells. NNC77-0074 stimulated glucose-dependent insulin secretion in intact mouse pancreatic islets. No effect was observed at ≤ 2.5 mM glucose and maximal stimulation occurred at 10-15 mM glucose. NNC77-0074 produced a concentration-dependent stimulation of insulin secretion. Half-maximal (EC_{50}) stimulation was observed at 24 μ M and at maximally stimulatory concns. insulin release was doubled. The stimulatory action of NNC77-0074 on insulin secretion was not associated with membrane depolarization or a change in the activity of ATP-sensitive K^+ channels. Using capacitance measurements, we found that NNC77-0074 stimulated depolarization-induced exocytosis 2.6-fold without affecting the whole-cell Ca^{2+} current when applied via the extracellular medium. The concentration dependence of the stimulatory action was determined by intracellular application of NNC77-0074 through the recording pipet. NNC77-0074 stimulated exocytosis half-maximal at 44 nM and at maximally stimulatory concns. the rate of exocytosis was increased twofold. NNC77-0074 stimulated depolarized-induced insulin secretion from islets exposed to diazoxide and high external KCl ($EC_{50}=0.45$ μ M). The stimulatory action of NNC77-0074 was dependent on protein kinase C activity. NNC77-0074 potently inhibited glucagon secretion from rat islets ($EC_{50}=11$ nM). This was not associated with a change in spontaneous elec. activity and ATP-sensitive K^+ channel activity but resulted from a reduction of the rate of Ca^{2+} -dependent exocytosis in single rat α -cells ($EC_{50}=9$ nM). Inhibition of exocytosis by NNC77-0074 was pertussis toxin-sensitive and mediated by activation of the protein phosphatase calcineurin. In rat somatotrophs, PC12 cells and mouse cortical neurons NNC77-0074 did not stimulate Ca^{2+} -evoked exocytosis, whereas the other imidazoline compds. phentolamine and efaroxan produced 2.5-fold stimulation of exocytosis. Our data suggest that the imidazoline compound NNC77-0074 constitutes a novel class of antidiabetic compds. that stimulates glucose-dependent insulin release while inhibiting glucagon secretion. These actions are exclusively exerted by modulation of exocytosis of the insulin- and glucagon-containing granules.
- IT 573698-57-4, NNC 77-0074
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
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